S. HRG. 108–241, PT. 1

DEPARTMENT OF DEFENSE AUTHORIZATION FOR APPROPRIATIONS FOR FISCAL YEAR 2004

HEARINGS

BEFORE THE

COMMITTEE ON ARMED SERVICES
UNITED STATES SENATE

ONE HUNDRED EIGHTH CONGRESS

FIRST SESSION

ON

S. 1050

TO AUTHORIZE APPROPRIATIONS FOR FISCAL YEAR 2004 FOR MILITARY ACTIVITIES OF THE DEPARTMENT OF DEFENSE, FOR MILITARY CONSTRUCTION, AND FOR DEFENSE ACTIVITIES OF THE DEPARTMENT OF ENERGY, TO PRESCRIBE PERSONNEL STRENGTHS FOR SUCH FISCAL YEAR FOR THE ARMED FORCES, AND FOR OTHER PURPOSES

PART 1

MILITARY POSTURE
SERVICE CHIEFS
SERVICE SECRETARIES
UNIFIED AND REGIONAL COMMANDERS
BALLISTIC MISSILE DEFENSE
ATOMIC ENERGY DEFENSE ACTIVITIES OF THE DEPARTMENT OF ENERGY
HOMELAND DEFENSE

FEBRUARY 13, 25; MARCH 6, 13, 18, 20; APRIL 8, 2003

Printed for the use of the Committee on Armed Services

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THURSDAY, FEBRUARY 13, 2003

U.S. SENATE,
COMMITTEE ON ARMED SERVICES,
Washington, DC.

MILITARY POSTURE

The committee met, pursuant to notice, at 9:34 a.m., in room SH–216, Hart Senate Office Building, Senator John Warner (chairman) presiding.

Committee members present: Senators Warner, Inhofe, Allard, Sessions, Collins, Ensign, Talent, Chambliss, Dole, Cornyn, Levin, Kennedy, Byrd, Reed, Akaka, Bill Nelson, Ben Nelson, Dayton, Bayh, Clinton, and Pryor.

Committee staff members present: Judith A. Ansley, staff director; and Marie Fabrizio Dickinson, chief clerk.

Majority staff members present: Charles W. Alsup, professional staff member; L. David Cherington, counsel; Brian R. Green, professional staff member; William C. Greenwalt, professional staff member; Carolyn M. Hanna, professional staff member; Mary Alice A. Hayward, professional staff member; Ambrose R. Hock, professional staff member; Gregory T. Kiley, professional staff member; Patricia L. Lewis, professional staff member; Thomas L. MacKenzie, professional staff member; Ann M. Mittermeyer, counsel; Lucian L. Niemeyer, professional staff member; Lynn F. Rusten, professional staff member; Scott W. Stucky, general counsel; and Richard F. Walsh, counsel.

Minority staff members present: Richard D. DeBobes, Democratic staff director; Daniel J. Cox, Jr., professional staff member; Madelyn R. Creedon, minority counsel; Kenneth M. Crosswait, professional staff member; Evelyn N. Farkas, professional staff member; Richard W. Fieldhouse, professional staff member; Creighton Greene, professional staff member; Maren R. Leed, professional staff member; Gerald J. Leeling, minority counsel; Peter K. Levine, minority counsel; Christina D. Still, professional staff member; and Bridget M. Whalan, special assistant.

Staff assistants present: Michael N. Berger, Leah C. Brewer, Sara R. Mareno, and Nicholas W. West.

Committee members' assistants present: Cord Sterling, assistant to Senator Warner; Christopher J. Paul, assistant to Senator McCain; John A. Bonsell, assistant to Senator Inhofe; James

Beauchamp, assistant to Senator Roberts; Jayson Roehl, assistant to Senator Allard; Arch Galloway II and Rick Dearborn, assistants to Senator Sessions; James P. Dohoney, Jr., assistant to Senator Collins; Lindsey R. Neas, assistant to Senator Talent; James W. Irwin, assistant to Senator Chambliss; Aleix Jarvis, assistant to Senator Graham; Henry J. Steenstra, assistant to Senator Dole; Sharon L. Waxman and Mieke Y. Eoyang, assistants to Senator Kennedy; Christina Evans and Erik Raven, assistants to Senator Byrd; Aaron Scholer, assistant to Senator Lieberman; Elizabeth King, assistant to Senator Reed; Davelyn Noelani Kalipi, assistant to Senator Akaka; William K. Sutey and Douglas Bush, assistants to Senator Bill Nelson; Eric Pierce, assistant to Senator Ben Nelson; William Todd Houchins, assistant to Senator Dayton; Todd Rosenblum and Rashid Hallaway, assistants to Senator Bayh; Andrew Shapiro, assistant to Senator Clinton; and Terri Glaze, assistant to Senator Pryor.

OPENING STATEMENT OF SENATOR JOHN WARNER, CHAIRMAN

Chairman WARNER. The committee meets today to receive testimony from Secretary of Defense Donald Rumsfeld and Chairman of the Joint Chiefs of Staff General Richard Myers on the posture of the U.S. Armed Forces as it affects the budget for fiscal year 2004 and in the future.

Secretary Rumsfeld and General Myers, we welcome you back before the committee and commend you once again for the outstanding service you both continue to provide to our Nation and to our men and women in uniform. I observe, as one who has been in that building, a very close and trusting working partnership between the two of you, and that's for the best interests of the men and women in the Armed Forces and indeed, the country. Our Nation could not have a better team guiding our military during these challenging times.

As we meet this morning, tens of thousands of our service members have departed their families, their homes, their jobs, and are engaged around the world in the global war on terrorism. Indeed, many of them have taken up posts here at home in defense of our own Nation. Many thousands more are preparing for possible conflict in Iraq and the Persian Gulf region. These very men and women in uniform deserve our strongest support, and their families here at home. They will get it.

President Bush stated in the new national security strategy for the United States, "Defending our Nation against these enemies is the first fundamental commitment for the Federal Government." Today, that task has changed dramatically. Enemies in the past needed great armies and great industrial capabilities to endanger America. Now shadowy networks have demonstrated the ability to inflict great chaos or suffering on our shores for less than it costs to produce a single tank or airplane. To defeat this threat, we must make use of every tool in our arsenal.

Clearly, homeland security is now our Nation's most urgent priority. The active involvement of our Armed Forces in defending America, supporting the Nation's homeland security infrastructure is essential. This committee's most urgent duty in the 108th Con-

gress must be to insure that the land, sea, air, space, and cyberspace closest to our shores are defended, and to be prepared, if necessary, to defeat those who would bring harm to our shores.

At the same time, however, we must remember, the defense of our homeland begins in the distant battlefields of the world. Our forward deployed forces are and will remain our first line of defense and deterrence. The morale and readiness of these forces are fundamental to the security of our Nation. It's critical that we fully honor the services of our men and women in uniform and that we keep faith in their dedication to duty through the timely modernization of their equipment and facilities, and sustain investment in those programs that enhance the quality of life for our service personnel and their families.

That message was reinforced as I visited each of our service secretaries, our service chiefs, and their staffs during December, preparing once again to assume the chairmanship of this distinguished committee. I'd like to thank you, Mr. Secretary and General Myers, for affording me the complete and open access to each of the services on the Office of the Secretary of Defense (OSD) staff. The briefings were of great benefit to me and my staff as we now assume our duties.

I am encouraged by my initial review of the President's defense budget request. The fiscal year 2004 request of $379.9 billion represents a $15.3 billion increase over the fiscal year 2003 level. This is a modest real increase in defense spending, 2.5 percent, but the 2004 budget request is almost $52 billion above the fiscal year 2002 enacted level, a significant increase by any measure.

The sustained increases in defense spending we have made over the past 3 or 4 years are, I think, making real strong progress to shore up the needs of this country to protect itself both here at home and abroad. We will begin fielding components of a national missile defense this year, filling a key role of President Bush and indeed preceding Presidents and many Members of Congress have been in strong support through these years.

The increased use of unmanned systems, a key initiative of this committee when I was first its chairman, has become a reality and a substantial funding for these systems in the budget will build on the initial successes we have seen so vividly thus far in the global war on terrorism.

Funding for Navy shipbuilding is increasing, not as much as we wish, but clearly the curve is headed up with construction of seven new ships in the budget before us.

I am encouraged by what I have seen so far, but I must add a note of caution. This budget proposes only a modest increase in defense spending at a time when our military is engaged in one war, the global war on terrorism; another war could be lurking; indeed, a third in the Pacific, the Korean Peninsula poses another growing threat. We are putting extraordinary demands on our forces around the world. We are blessed with a military that has responded to these demands with extraordinary success, and that military is composed not only of the regular forces, but the National Guard and the Reserves.

Even the best military in the history of the world has its limits. People, facilities, equipment, and families can only do so much with

limited resources. As we review the budget request over the next few years and months, we need to carefully analyze the effect of this long-term stress on our men and women in uniform and their families, and consider the investments needed to ensure we have the people and the capabilities to carry on the objectives that have been laid down by our courageous President.

Again, gentlemen, thank you for your service, and your continued commitment to the uniformed and civilian personnel of your department. All you've given in protecting our homeland and your focus on preparing our Armed Forces to meet the expected and unexpected stress of the future have greatly enhanced our national security.

Senator Levin.

STATEMENT OF SENATOR CARL LEVIN

Senator LEVIN. Thank you, Mr. Chairman. Let me first join you in thanking our witnesses today, thanking you for your service, and thanking you for coming to share with us your thoughts on the issues which face our Nation and the world.

Our Armed Forces stand on the brink of possible military action in the next few weeks. As many as 250,000 of our soldiers, sailors, airmen, and marines will be in the Persian Gulf region preparing for a possible war against Iraq. Almost 40,000 more stand on the front lines in Korea, within range of North Korean artillery and rockets. Thousands of additional American troops are risking their lives every day in continued operations in the global war on terrorism in Afghanistan and other hot spots around the world. Of course, many more continue to work to keep the peace and work to build a more stable future in the Balkans and elsewhere. To support these efforts, the President has already called up more than 100,000 members of the Reserve component to active duty.

Many questions have been raised in recent months about our policy moves on Iraq, Korea, and elsewhere. Concerns have been raised about our proclivity to proceed unilaterally; about a rising tide of anti-Americanism overseas; about the risk that the focus on Iraq has reduced our focus on the war against terrorism, which has to be fought and won here at home as well as overseas; about whether our refusal to talk directly with the North Korean regime as urged by our South Korean allies may be undermining our interests in that area of the world; and about the degree of our commitment to rebuilding Afghanistan and the possible consequences of a similar lack of follow-through in Iraq.

I share many of those concerns. I believe that America is at its strongest and at its best when we make common cause with other nations in pursuit of common goals. I believe that the path to a safer world and a more secure America rarely comes from a go-it-alone approach. Specifically, I believe that in the absence of an imminent threat, it is in our interest to have a U.N. resolution authorizing member states to take military action before initiating a preemptive attack against Iraq.

If there is any chance of disarming Saddam Hussein without war, it is for the United Nations to speak with one voice. If military force is used, the best way of reducing both short-term risks, including the risks to the U.S. and the Coalition Forces, and the

long-term risks, including the risk of terrorist attacks on our people throughout the world, is also a U.N. resolution authorizing the use of force.

Supporting U.N. inspections is an essential step if we're going to keep the Security Council together. We can show support for those U.N. inspections by sharing with the U.N. inspectors the balance of our significant intelligence information about suspect sites, by quickly getting U–2 aircraft in the air over Iraq without condition, with or without Saddam Hussein's approval, and by giving the inspectors the time they need to finish their work, as long as the inspections are unimpeded.

Yesterday I talked about statements by the administration that all useful intelligence information in our possession has now been shared with the U.N. inspectors. Condoleezza Rice told us exactly that at the White House 10 days ago. George Tenet told us at an open Intelligence Committee hearing 2 days ago exactly that. They were in error. Director Tenet acknowledged yesterday right here that we still have information and we will be sharing it.

The premature declaration that we've already shared all useful intelligence makes us seem excessively eager to bring inspections to a close. Top administration officials from the beginning said inspections were useless and that inspectors couldn't find anything without Saddam showing them where it was.

That's what he's supposed to do, but there is at least a chance inspections will prove useful even without his cooperation. Inspectors caught him in lies about his biological weapons programs in the 1990s, and in this morning's papers it appears they're catching him in lies about the range of missiles that he is currently developing.

Another way to support the inspectors is to back up their request for U–2 surveillance planes with a U.N. resolution that says that any interference with those planes by Saddam Hussein will be considered an act of war against the United Nations. During the State of the Union speech President Bush noted that, "Iraq is blocking U–2 surveillance flights requested by the United Nations." Secretary Powell, during his address to the U.N. Security Council a week ago, noted that "Iraq has also refused to permit any U–2 reconnaissance flights that would give the inspectors a better sense of what's being moved before, during, and after inspections."

In The New York Times on January 30, a senior White House official is quoted as describing Iraq's refusal to allow the U–2 surveillance flights, "the biggest material breach of all, so far."

I met with Dr. Blix and his staff on January 31 in New York. They told me that U–2 flights would be very useful because of their ability to observe large areas of Iraq over extended periods of time. U–2 flights would be particularly helpful to track trucks that appear to be moving items from one suspicious place to another and to track mobile labs. Satellites can't track suspicious vehicles; U–2s can.

For this reason, I was astonished to read on Tuesday that State Department spokesman Richard Boucher characterized what appeared to be an agreement to implement U–2 flights as, "nothing worth getting excited about." If Iraq's refusal to allow U–2 surveillance is cited by the President, characterized by the White House

as a big material breach, if Secretary Powell is right when he says that U–2 surveillance flights would give the inspectors a better sense of what's being moved before, during, and after inspections, then minimizing their usefulness at this point can only be explained as further disdain for the inspection's effort.

It may be unlikely that inspectors will catch Saddam with the goods without his cooperation. It's at least possible, however, and we should increase that possibility by sharing all our useful intelligence and using the U–2.

Supporting the inspectors in these and other ways is not inconsistent with the position that the administration has correctly taken that the burden is on Saddam Hussein to show where the prohibited material is or what he's done with it. The fact that he hasn't carried his burden is undeniable but how best to deal with his deceit and deception is still ours and the world's challenge.

At the same time that our Nation faces these vital issues of war and peace, our committee will be asked to address a wide range of other issues affecting the Department of Defense over the next year, including many of the budget issues which the chairman has just gone through. But we're also told that the administration is considering a wide array of far reaching proposals that would change the way the Department of Defense operates and the role of Congress in overseeing these operations.

For example, we're told that the administration is considering a proposal—I emphasize the word considering—that would:

One, alter congressional oversight and control over defense expenditures by putting the Department on a 2-year budget cycle or raising the threshold for reprogramming funds without congressional approval.

Two, that they are considering a proposal to change the role played by the Joint Chiefs of Staff by replacing the current 4-year term served by the service chiefs with 2-year terms renewable at the discretion of the Secretary; requiring the Joint Staff to report to the Secretary of Defense, rather than to the Chairman of the Joint Chiefs; and requiring secretarial approval of all appointments to the Joint Staff and by striking the statutory requirement that the Joint Staff be "independently organized and operated."

Three, that's apparently under consideration, we're told, is to change the role played by the Reserves in our Armed Forces by, for instance, making it easier to shift money from Reserve Forces to Active-Duty Forces without the need for congressional approval, and eliminating the Assistant Secretary of Defense for Reserve Affairs, the highest ranking advocate for the interests of the Reserve Forces in the Department.

Four, we're told that under consideration is altering the treatment of the Department's civilian employees by denying them the right to union representation, eliminating grievance procedures, making it easier to fire them, and making it easier to transfer work currently performed by civilian employees to the private sector without allowing them to compete for their jobs.

Finally, we're told that under consideration is a proposal to give the administration the authority to reorganize the Department without regard to legislative requirements and to abolish a significant number of positions, including the Assistant Secretary of De-

fense for Special Operations and Low Intensity Conflict, the DOD official responsible for coordinating the Department's efforts to combat terrorism.

Mr. Chairman, I emphasize that these proposals are apparently only under consideration. Many of them may never become formal legislative proposals submitted to Congress. But in view of the far-reaching impact that they could have if enacted, our members should be aware that we may have to address some of them in the coming year.

Finally, Mr. Chairman, I want to utilize the presence of Secretary Rumsfeld and General Myers to extend our gratitude to the men and women of the Department of Defense, military and civilian alike, for the extraordinary work that they do for us every hour of every day to ensure our Nation's security.

There may not be unanimity around here on a number of issues, but there is unanimity around here on at least one thing. All of us and the American people will stand behind our uniformed forces if they are engaged in military conflict. Should they be so engaged, we will provide our men and women in uniform with everything that they need to ensure that they prevail promptly and with minimal casualties.

Thank you, Mr. Chairman.

Chairman WARNER. Thank you, Senator Levin.

During the course of the hearing this morning, I will introduce into the record a letter from the Director of the Central Intelligence Agency (CIA) with regard to his perspectives on the very important matter that my colleague has raised concerning the flow of intelligence information from our Government to the Security Council and to Hans Blix' organization.

I have been present at I think most of the meetings that my distinguished colleague has had with the director and/or his staff. I have views somewhat different on the same facts; I basically believe there has been a very orderly and carefully prepared flow of information from our Government. That flow is controlled only in a manner to enhance and to support the work by Blix and his team.

But nevertheless, I felt it important and I asked the director to prepare a letter, which he ensured me about 20 minutes ago would be forthcoming, and I will share it with you and we may have further comments on this important subject as the day goes on. But I just wanted to tell Secretary Rumsfeld, this is a matter which is being addressed by Director Tenet and his staff.

[The information referred to follows:]

Central Intelligence Agency

Washington, D.C. 20505

6 March 2003

The Honorable John Warner
Chairman
Committee on Armed Services
United States Senate
Washington, D.C. 20510

Dear Mr. Chairman:

In response to your request, you will find below an additional statement from me on the Intelligence Community's provision of information to the United Nations inspection effort in Iraq.

The statement is largely drawn from my testimony to the Senate Select Committee on Intelligence on 11 February 2003 and my testimony to the Senate Armed Services Committee on 12 February 2003. I ask that the statement be entered into the record of your Committee's hearing of 12 February 2003. I trust that the statement will help clarify that record and I stand ready to provide additional clarification if needed. I apologize for any confusion that may have arisen in this regard.

STATEMENT FOR THE RECORD

The American intelligence community has provided extensive intelligence and other support to the United Nations on Iraq and WMD, and potential inspection sites for over 10 years. There is, therefore, a very strong common understanding of sites of potential interest to inspectors, whether UNSCOM inspectors or UNMOVIC inspectors or IAEA inspectors. When the current round of inspections began, the Intelligence Community assembled several lists of suspect sites, which we combined into a common list in early January. This list consisted of high, moderate and low value sites, depending on our assessment of recent activities suggesting ongoing WMD association or other intelligence information that the sites were worth inspecting.

We have now provided detailed information on all of the high value and moderate value sites to UNMOVIC and the IAEA.

Of the remaining sites on the suspect list, that is those of lower interest, it is important to note two things. One, that intelligence has been provided for all but a handful of these sites to either UNMOVIC or its predecessor, UNSCOM, or the IAEA. In addition, UNMOVIC has, during the current inspections, inspected far more than half of these "lower interest sites."

It is important to note that our support to UNMOVIC and the IAEA goes well beyond the provision of information on sites. We've briefed them on the Iraqi declaration, we've briefed them on missiles; we've briefed them on the nuclear program; we've briefed them on CW; on BW; on a whole range of subjects.

It is important to note that we continue to provide information to UNMOVIC and IAEA as new information is received or analyzed, or UNMOVIC and IAEA make additional requests.

Sincerely,

George J. Tenet
Director of Central Intelligence

cc: The Honorable Carl Levin
The Honorable Pat Roberts

Gentlemen and ladies of the committee, we now have a quorum present. We have a very important piece of business, and I ask your support, Mr. Secretary and General, for a minute while we attend to the following.

I ask the committee now to consider a resolution for the committee funding and committee rules for the 108th Congress. Senator Levin and I have worked together on both of these items. Under Senate rules, each committee of the Senate is required to report out a resolution at the beginning of each Congress authorizing that committee to make expenditures out of the contingent funds of the Senate to defray its expenses, including staff salaries and administrative expenses for a 2-year period.

The committee staff has worked together to prepare this resolution on the committee budget and it is before us today. You and I, Senator Levin, have reviewed that and have authenticated this work. The proposed budget is in line with the funding guidelines provided by the Rules Committee. If there are no questions before the committee, I proceed to seek a vote.

Senator LEVIN. Mr. Chairman, I support this and thank you for you and your staff's great work on it.

Chairman WARNER. Would you then, Senator Levin, make the motion to report out the committee's funding resolution?

Senator LEVIN. So moved.

Senator INHOFE. Second.

Chairman WARNER. The motion is agreed to.

In addition, the committee must adopt its rules for the 108th Congress. Senator Levin and I have reviewed the rules and have agreed that no changes from the previous Congress are required. Therefore, I recommend that the committee adopt the rules that were followed by the 107th Congress. A copy of the rules has been provided to each member. Any questions? Hearing none, I turn to Senator Levin.

Senator LEVIN. I move the adoption of the rules.

Senator ALLARD. Second.

Chairman WARNER. All in favor, say aye. [Chorus of ayes.]

Both motions are voted in block. Thank you very much.

Senator BYRD. The chair didn't ask for the negatives.

Chairman WARNER. Very well, I will repeat that again. Is there any objection? Hearing none, the rules are adopted in block, the budget is adopted in block, and I thank our distinguished former president pro tempore, who is always correct.

Senator LEVIN. Even when he's not correct, he's always correct, which is rarely. [Laughter.]

Chairman WARNER. Now, Mr. Secretary, we anxiously await the message by yourself and your distinguished Chairman of the Joint Chiefs of Staff. My understanding, as we discussed this morning, is that you have a very lengthy statement, which you have now condensed, and you will give us the condensed version, but we accept into the record the full statements by all witnesses present today.

STATEMENT OF HON. DONALD H. RUMSFELD, SECRETARY OF DEFENSE

Secretary RUMSFELD. Thank you, Mr. Chairman, members of the committee. I appreciate this opportunity to update the committee on our progress in transforming the Department of Defense and to discuss the President's budget for fiscal years 2004 to 2009.

We are, of course, engaged in a war on terror in an effort to protect America and our allies in a time when terrorist networks and terrorist states are trying to get weapons of mass destruction. Our Nation is fortunate to have so many brave men and women who voluntarily risk their lives to defend our country. Sixty-three American service members have died since the global war on terror began. Already this year, six have given their lives. We are grateful to all who serve and to their families who worry about them understandably, and endure the separations from them. The families also serve our country. We have a responsibility to give them the resources they need to defend the country in this new century.

We have entered what may very well prove to be the most dangerous security environment the world has known, and the more we learn, the more we realize how large and demanding these new challenges are proving to be.

The 2004 numbers represented our best estimate at the time the budget was developed. It may well change over the coming period as we learn more about the demands of safety on a worldwide basis. There is no doubt in my mind, for example, that we will be

back with a supplemental, and reasonably soon, to fund the global war on terrorism as well as the cost of flowing forces in connection with support to the diplomacy in Iraq.

We also have intense efforts underway to transform the Department and streamline and modernize to save the taxpayers money. As those efforts succeed, we ought to be able to shift some of those resources towards more urgent and more productive uses. President Bush vowed that on taking office he would order an immediate comprehensive review of our military. He said he would give his team at the Department a broad mandate to challenge the status quo and envision a new architecture of American defense for the decades to come.

Mr. Chairman, for the past 2 years we have pursued the goals he set out. We have fashioned a new defense strategy, a new approach to sizing our forces, a new approach to balancing risks. We have reorganized the Department to better focus on space activities. We've adopted a new unified command plan which establishes a new Northern Command to better defend the homeland, a Joint Forces Command that focuses on transformation, and a new Strategic Command (STRATCOM) responsible for early warning of and defense against missile attack and the conduct of long range attack.

We have expanded the mission of the Special Operations Command (SOCOM) so that it can not only support missions directed by regional combatant commanders, but also plan and execute its own missions in the global war on terror.

We have reorganized and revitalized the missile defense research, development, and testing program, freed from the constraints the Antiballistic Missile (ABM) Treaty. We have completed a nuclear posture review with a new approach to deterrence that will enhance our security while permitting historic deep reductions in offensive nuclear weapons.

We have moved from a threat-based to a capability-based approach to defense planning, focusing not only on who might threaten us or where we might be threatened, or even when, but more on how we might be threatened and what portfolio of capabilities we will need to deter and defend against these new threats. These are critically important accomplishments. They will benefit our national security for many years to come.

But as important as these changes are, they must be only the beginning. To win the global war on terror, our Armed Forces need to be flexible, light, and agile so that they can respond quickly to sudden changes. The same is true of the men and women who support them in the Department. They also need to be flexible, light, and agile so we can move money and shift people, and design and buy new weapons more quickly and respond to the frequent sudden changes in our security environment.

Today we simply do not have that kind of agility. In an age when terrorists move information with the speed of an e-mail, money at the speed of a wire transfer, and people at the speed of a commercial jetliner, the Defense Department is still bogged down in micromanagement and bureaucratic processes of the industrial age, not the information age. Some of these difficulties are self imposed to

be sure, some of them are the result of law and regulation, but together they have created a culture that too often stifles innovation.

Consider just a few of the obstacles that we are faced with every day. Think of this 2004 budget that we consider today. It was developed by the Department from March to December of last year, the year 2002. This is for the 2004 budget. The Office of Management and Budget (OMB) considered it from December to February of this year when the President presented it to Congress this month. Congress will be likely considering it from now until October or November of this year, and if as in the past, changing 10 or 20 percent of what the President proposed. DOD will then live with what's left during the period from October of this year to September 2004. That means that at any given time during the fiscal year of that budget, that plan, it will be between 14 and 30 months old while we're trying to implement what Congress provides.

We will be doing this in a world that's changing more rapidly than that. At a minimum, the budget will be something like a year to 2½ years out of date at any given time. The Department spends an average of about $42 million an hour. If we are permitted to move $15 million from one account to another, nothing more than that without getting permission from between four and six different congressional committees, a process that can take several months to complete.

Today we estimate we have some 300,000 uniformed people doing non-military jobs. Yet, we're calling up Reserves to fight the global war on terror. We need to prepare and submit some 26,000 pages of justification and over 800 required reports to Congress each year. Many have, I believe, value at the outset but have only limited value years later. These reports consume many thousands of hours on the part of the Department personnel. These problems make it increasingly difficult to balance risks.

Consider these facts. I am told that the last time I was Secretary of Defense, the 1977 Defense Authorization Bill was 16 pages long. In 2001, it has grown to 534 pages. In 1977, Congress made a total of 46 changes to the Army and Defense Agency research, development, test, and evaluation (RDT&E) programs. In 2001, that number had grown from 46 to 450 individual changes made by Congress. Every change that Congress makes in a program to increase something, there is a cost elsewhere in the budget that has to be subtracted. For example, we add something one place, we may have to reduce funding for housing, spare parts, or transformation. Of course it makes it very difficult to balance risks.

But the point is this: We're fighting the first wars of the 21st century with a Department that was really fashioned to meet the challenges of the mid-20th century, and we need together to find ways that we can fix that.

Last year Congress enacted historic legislation to create a new Department of Homeland Security and rearrange the Government to be better prepared for attacks against our homes, schools, and places of work. I hope we can now address the Department of Defense. We're already working with a number of you on the committee, through your staffs, to fashion legislation to present to you to bring the Defense Department into the 21st century, and to trans-

form how it moves money, how it manages people, and how it buys weapons.

I must say, at this point, that I listened to Senator Levin and I have not heard of many, if not most, of the things that were being cited by the Senator, and I wouldn't want any impression to be left that that litany of items are things that we've concluded, because we haven't. Indeed, we decided to work with your staffs and work with the members in this body and the other body so that we can fashion some sort of an omnibus bill that has a reasonable chance of being approved.

We're looking at, among other things, proposals to establish a national security personnel system that could give us somewhat greater flexibility as to how we handle and manage our civilian personnel. A nonintuitive effect is the difficulty in managing wonderful people on the civilian side. It's a difficult element of the Department to manage, and as a result, we find that people are constantly using people in uniform instead of civilians, which wasn't the intention at all. They're using them because they can move them in and move them out and direct them better than they can the civilian force.

We find that people are also using contractors much more than probably makes sense to avoid the difficulties in having a civilian population that the Department really doesn't manage. They are more managed by the Office of Personnel Management.

We are talking about the possibility with your staffs and members about a one-time reorganization with fast track approval procedures.

We think we need to establish more flexible rules for the flow of money through the Department. We're talking about the possibility of establishing a 2-year budget cycle, so that the hundreds of people who invest time and energy to review each major program each year can be freed up to consider in 1 year the tasks of implementation and performance and methods.

We're trying to figure out ways that we can eliminate some of the regulations that make it difficult for many small enterprises to do business with the Department. We think it's important that they have the opportunity to do business with the Department.

We're looking at ways to expand our authority for competitive outsourcing so that we can get military personnel out of non-military tasks and back into the field. We are also trying to establish more flexible military retirement rules so those who want to serve longer may have the option to do so.

We're consulting with all of you as I said, and I hope we can find some approach that will help us achieve those goals.

Where we have authority to fix problems, we're working hard to do so, but to get the kind of flexibility that we're required to have in this new security environment, I believe we're going to end up needing legislative relief and we will need your help in working with us on that.

As to the defense budget, last year's budget, the fiscal year 2003 request, was finalized just as our review process was nearing completion. We were able to begin funding some transforming initiatives as the new defense strategy came into focus. But it is this

year's budget, the fiscal year 2004 budget request before you, that is really the first to reflect the new defense strategies and policies.

Balancing risks between near- and long-term challenges is difficult. It's difficult in peacetime, but today to best serve our country we need to accomplish three challenges at once. To successfully fight the global war on terror, prepare for near-term threats by making long delayed investments in readiness, people, and modernization, and also preparing for the future by continuing the process of transforming.

The fiscal year 2004 budget request before you is designed to help do all three. Our defense review identified six goals that drive our efforts.

First, we have to be able to defend the homeland and bases of operation overseas.

Second, we have to project and sustain forces in distant theaters.

Third, we have to be able to deny enemy sanctuary.

Fourth, we have to improve our space capabilities and maintain unhindered access to space.

Fifth, we must harness our country's advantages in information technology to link up different kinds of U.S. forces so they can truly fight jointly.

Sixth, we have to be able to protect U.S. information networks from attack and to be able to disable the information networks of our adversaries.

The fiscal year 2004 budget request has funds to support each of these important tasks. Over the next 6 years, we have proposed a 30-percent increase in procurement funding and a 65-percent increase in funding for research, development, testing, and evaluation, above the fiscal year 2002 baseline budget, a total investment of about $150 billion.

The total investment in transforming military capabilities in the fiscal year 2004 budget request is estimated at $24.3 billion, and about $240 billion over the next 6 years.

To prepare for the threats we will face later in this decade, the fiscal year 2004 budget request increased investments in a number of areas. Over the next 6 years, the President has requested a 15-percent increase in military personnel accounts above the 2002 baseline budget, and an increase in funding for family housing by 10 percent over that period. Over the next 6 years, we have requested a 20-percent increase for operations and maintenance accounts above the 2002 baseline budget. We've added $40 billion for maintenance for all services and $6 billion for facility sustainment over that period.

These investments should help to put a stop to the past practice of raiding the investment accounts to pay for the immediate operation and maintenance needs.

The fiscal year 2004 budget does not, I repeat, does not include funds for operations for the global war on terror. Last year we requested, but Congress did not provide, the $10 billion that we knew we would need for the first few months to conduct the global war on terror, including the combat air patrols over the United States, the force protection in the United States, and the other aspects of it. Because we're still without those funds, every month since October 2002—October, November, December 2002, January, and now

February 2003, we've had to borrow from other programs to pay for the cost of war, robbing Peter to pay Paul. That does not include the cost of preparations for a possible contingency in Iraq and the cost of the flow of forces that has taken place thus far in support of the diplomacy.

Indeed, shifting money around in this way is we believe inefficient and ultimately the most expensive method possible for funding. We will be coming to you later this year for a 2003 war supplemental to get the money we had wanted a year ago and we knew would be necessary. In the end, to make up for the cost of having to shift funds, we will probably need somewhat more money than would otherwise have been the case. This pattern has been fundamentally harmful to our ability to manage the Department and show respect for taxpayers' money.

In the fiscal year 2004 request, we've increased the shipbuilding budget by $2.7 billion, making good on our hope expressed last year that we could increase shipbuilding from five to seven ships per year. We increased the special operations budget by $1.5 billion to pay for equipment that was lost in the global war on terror, particularly in Afghanistan and Pakistan, and an additional 1,890 people.

We increased military and civilian pay by $3.7 billion.

We increased missile defense by $1.5 billion, including increased funds for research and development (R&D) of promising new technologies and to deploy a small number of interceptors beginning in 2004.

The President asked Congress for a total of $379.9 billion for fiscal year 2004. That's a $15.3 billion increase over last year's budget. That's a large amount of the taxpayers' money but even with that increase as large as it is, we still have to make some tough choices between competing demands.

Let me state it straight out. Despite the significant increase in shipbuilding, we did not get the shipbuilding rate up to the desired rate of close to 10 ships per year. Because of planned retirements of other ships, we will drop below a 300 ship fleet during the course of the Future Years Defense Plan (FYDP).

The Navy is in the process of transforming and we have had increased shipbuilding in 2004, but we do not want to lock ourselves into a shipbuilding program until we know more precisely which ships we will want to build in the outyears.

We have not been able to modernize our tactical air forces fast enough to reduce the average age of the Defense Department's aircraft fleet. We have not fully resolved our so-called high demand low density problems, systems like Joint Surveillance Target Attack Radar System (JSTARS), which because they have been chronically underfunded in the past will still be in short supply in this budget.

We opted not to modernize a number of legacy programs, taking on some near-term risks to transforming capabilities that we will need in this fast moving world.

We did not achieve the level of growth in science and technology (S&T) accounts that we had hoped for. Our request is $10.2 billion, or 2.69 percent of the 2004 budget. That's below the goal of 3 per-

cent, although because the budget is up, the actual amount is rising.

Now that's the bad news, but there's good news as well. In making difficult choices between competing priorities, we made better choices because we followed the new approach to try to balance risks that we developed in last year's defense review, an approach that tries to take into account not just the risks in operations and in contingency plans but also the risks to people, modernization, and to the future. The result is a more balanced approach and we hope a more coherent program. As such, it's a program that can be adversely unbalanced unintentionally unless we are careful and work together as you and the Appropriations Committee in the other chamber of Congress complete your work.

While we're requesting increased funds, the services have stepped up to the plate and will be cancelling, slowing, or restructuring a number of programs. In all, the Army, Navy, and Air Force have achieved savings of some $80 billion over the FYDP, money that will be reinvested by the Services in capabilities they believe are important for this new security environment.

As a result of these strategic investments and decisions, we can now see the effects of transforming beginning to unfold. Consider some of the changes that are taking place.

Today the missile defense research, development, and testing program has been revitalized and we are on track for a limited land-sea deployment in 2004 and 2005.

Today we're converting four Trident submarines into conventional nuclear-powered cruise missile attack submarines (SSGNs) capable of delivering special forces and cruise missiles, a part of the nuclear posture review.

Today we're proposing to build the nuclear-powered aircraft carrier CVN 21 in 2007, which will include many, if not all, of the new capabilities that were previously scheduled to be introduced only in 2011.

Today we have seen targeted pay raises and other reforms help retain mid-career officers and non-commissioned officers (NCOs) so that fewer of them leave the Service while still in their prime, and so the country can continue to benefit from their enormous talents and skills.

These are positive changes that will ensure that future administrations will have the capabilities they need to defend the country.

Finally, I believe that the transparency of the process that we've used to develop this budget has been unprecedented. For several months now we have been providing detailed briefings to those interested in defense here on Capitol Hill so that Congress is not simply being presented with the President's budget today but has been kept in the loop as decisions have been made. Our goal was to ensure that Members and staff had every opportunity to better understand the thinking that lies behind these proposals. I'm told that the extent of consultation from the Department to Congress this year has been unprecedented.

We hope that this spirit of openness and cooperation can continue in the period ahead. We need to work together to bring DOD out of the industrial age and help get in range for the fast paced security environment we live in.

I close by saying that transformation is not an event, there is not a point at which the Defense Department will move from being untransformed to transformed. Our goal is to set in motion a process of continuing transformation in a culture that will keep the United States several steps ahead of potential adversaries. To do that, we need not only resources but equally we need the ability to use them with speed and agility, so that we can respond quickly to the new threats we will face as the century unfolds.

I feel deeply about the urgency of seeing that we transform the Department and enable it to serve the American people and our friends and allies in a responsible way in the 21st century. We will have to work together if we are to best serve the country.

[The prepared statement of Secretary Rumsfeld follows:]

PREPARED STATEMENT BY HON. DONALD H. RUMSFELD

INTRODUCTION

Mr. Chairman and members of the committee, thank you for this opportunity to update the committee on our progress in transforming the Department of Defense for the 21st century and to discuss the President's budget for fiscal year 2004–2009.

President Bush vowed that, on taking office, he would order "an immediate, comprehensive review of our military—the structure of its forces, the state of its strategy, the priorities of its procurement." He warned of new dangers—of "barbarism emboldened by technology," the proliferation of "weapons of mass destruction . . . car bombers and plutonium merchants give his team at the Department of Defense "a broad mandate to challenge the status quo and envision a new architecture of American defense for decades to come."

The goal, he said, would be "to move beyond marginal improvements—to replace existing programs with new technologies and strategies." Doing this, he said, "will require spending more—and spending more wisely."

Mr. Chairman, for the past 2 years, we have pursued the goals he set out. We have:

- Fashioned a new defense strategy.
- Replaced the decade-old two Major Theater War approach with a new approach to sizing our forces that allows us to provide for homeland defense, undertake a major regional conflict and win decisively, including occupying a country and changing the regime if necessary, simultaneously swiftly defeat another aggressor in another theater, and in addition have the capability of conducting a number of lesser contingencies.
- Developed a new approach to balancing risks that takes into account not just the risks to immediate war plans, but also the risks to people and transformation.
- Reorganized the Department to better focus our space activities.
- Adopted a new Unified Command Plan, which establishes the new Northern Command to better defend the homeland; a Joint Forces Command that focuses on transformation; and a new Strategic Command responsible for early warning of, and defense against, missile attack and the conduct of long-range attacks.
- Expanded the mission of the Special Operations Command, so that it can not only support missions directed by the regional combatant commanders, but also plan and execute its own missions in the global war on terror, supported by other combatant commands.
- Initiated work with Allies to develop a new North Atlantic Treaty Organization (NATO) command structure and begin work on a new NATO Response Force.
- Took steps to attract and retain talent in our Armed Forces, with targeted pay raises and quality of life improvements.
- Made a number of tough program decisions, including replacement of the Crusader, B–1 modernization, and the Navy "area-wide" restructuring.
- Instituted "realistic budgeting," giving Congress more realistic estimates of what programs can be expected to cost, rather than coming back for annual non-emergency supplementals.
- Reorganized and revitalized the missile defense research, development and testing program, freed from the constraints of the ABM Treaty.

• Completed the Nuclear Posture Review, with a new "approach to deterrence that will enhance our security, while permitting historic deep reductions in offensive nuclear weapons.
• Moved from a "threat-based" to a "capabilities-based" approach to defense planning, focusing not only on who might threaten us, or where, or when—and more on how we might be threatened, and what portfolio of capabilities we will need to deter and defend against those new threats.

These are important accomplishments. They represent some of the most significant changes in the strategy and structure of our Armed Forces in at least a generation.

But as important as these changes are, they must be only the beginning. Because transforming is about more than developing new strategies and structures—it is about changing culture, about encouraging new ways of thinking, so we can develop new ways of fighting and provide our Armed Forces the tools they need to defend our way of life in the 21st century.

We are working to promote a culture in the Defense Department that rewards unconventional thinking—a climate where people have freedom and flexibility to take risks and try new things. We are working to instill a more entrepreneurial approach to developing military capabilities, one that encourages people to behave less like bureaucrats; one that does not wait for threats to emerge and be "validated," but rather anticipates them before they emerge—and develops and deploys new capabilities quickly, to dissuade and deter those threats.

Most agree that to win the global war on terror, our Armed Forces need to be flexible, light, and agile—so they can respond quickly to sudden changes. Well, the same is true of the men and women who support them in the Department of Defense. They also need to be flexible, light, and agile—so they can move money, shift people, and design and buy new weapons quickly, and respond to sudden changes in our security environment.

Today, we do not have that kind of agility. In an age when terrorists move information at the speed of an email, money at the speed of a wire transfer, and people at the speed of a commercial jetliner, the Defense Department is bogged down in the micromanagement and bureaucratic processes of the industrial age—not the information age. Some of our difficulties are self-imposed, to be sure. Some are the result of law and regulation. Together they have created a culture that too often stifles innovation. Consider just a few of the obstacles we face each day:

• Think of this fiscal year 2004 budget—it was developed by the Department of Defense from March 2002 to December 2002. OMB considered it from December 2002 to February 2003 when the President presented it to Congress. Congress will be considering it from February 2003 to probably October or November 2003 and, as in the past, making 10–20 percent changes in what he proposed. DOD will then try to live with what's left during the period October 2003 to September 2004. That means that at any given time during the fiscal year of that budget, it will be *14 months* to *30 months* old while we are trying to implement what Congress gives us. All this in a world that is changing monthly before our eyes.
• The Department of Defense spends an average of $42 million an hour—yet we are not allowed to move $15 million from one account to another without getting permission from 4–6 different congressional committees, a process that can take several months to complete.
• Today, we estimate we have some 320,000 uniformed people doing non-military jobs, yet we are calling up Reserves to fight the global war on terror.
• We must prepare and submit 26,000 pages of justification and over 800 required reports to Congress each year—many of marginal value and most probably never read—consuming hundreds of thousands of manhours.
• Despite 128 acquisition reform studies, we have a system in the Defense Department that since 1975 has doubled the time it takes to produce a new weapons system—in an era when technology moves so fast that new technologies often become obsolete in months and years, not decades.
• Since September 11, our force protection costs have gone up by some $5 billion annually. But because we are required to keep some 20 percent plus more facilities capacity than are needed to support the force, we are effectively wasting something like $1 billion every year on force protection alone for bases and facilities we do not need. We need to follow through with the base closure process that Congress authorized last year without changes.
• We have to contend with growing micromanagement of the Defense budget, making it increasingly difficult to balance risks. Consider these facts:

- The last time I was Secretary of Defense, the 1977 defense authorization bill was 16-pages long—in the year 2001 it had grown to 534 pages.
- In 1977, Congress made a total of 46 changes to Army and Defense Agency research, development, testing, and evaluation (RDT&E) programs; by 2001 that number had grown to 450 individual changes. For every change Congress makes in a program, there is a cost elsewhere in the budget—every plus-up in one place means we must reduce funds for something else, be it housing, or spare parts or transformation—making it exceedingly difficult to balance risks.

- We spend millions of taxpayer dollars training top-notch officers and senior enlisted, giving them experience—and then we shove them out the door in their 40s and early 50s, when they are at the top of their game—and we will be paying 60 percent of their base pay and providing them with comprehensive healthcare for the rest of their lives. The loss in talent and experience to the Department and the country is sizable.
- We bounce officers around from assignment to assignment every 16, 18, 22 months, so many end up skipping across the tops of the waves so fast they don't have time to learn from their own mistakes.
- We rely on almost 1,800 antiquated legacy information systems to run the Defense finance end accounting systems—ensuring we cannot produce timely and accurate management information.
- We have the equivalent of an Army heavy division's worth of auditors, inspectors, and investigators.
- We have thousands of people focused on developing and justifying budgets, and a fraction of those focused on ensuring effective implementation and desired outcomes.

The point is this, we are fighting the first wars of the 21st century with a Defense Department that was fashioned to meet the challenges of the mid-20th century. We have an industrial age organization, yet we are living in an information age world, where new threats emerge suddenly, often without warning, to surprise us. We cannot afford not to change and rapidly, if we hope to live in that world.

Some of the fault for this lies with the executive branch; some lies with the legislative branch, and some is simply due to the fast pace of events. But the American people do not care about blame—for their sake we need to get to work fixing the problems.

Last year, Congress and the administration did just that, when we faced up to the fact that our Government was not organized to deal with the new threats to the American homeland. You enacted historic legislation to create a new Department of Homeland Security and rearrange our Government to be better prepared for potential attacks against our homes and schools and places of work.

We must now address the Department of Defense. We are already working with a number of you to fashion legislation to bring the Defense Department into the 21st century—to transform how it moves money, manages people, and buys weapons. We are looking at, among other things, proposals to:

- Establish a National Security Personnel System that will give the Department of Defense greater flexibility in how it handles and manages its civilian personnel—so we can attract and retain and improve the performance of our 700,000-plus civilian work force. Today it is managed outside the Department. The unintentional effect has been that the Department uses military personnel and contractors rather than civilians, since they can be more easily managed.
- A one-time reorganization of the Department, with "fast track" approval procedures.
- Move a number of the non-military functions that have been thrust on DOD over the years to other Departments that can provide similar or better services, so DOD can focus on the tasks where it must excel: defending our country in a dangerous new century.
- Transfer some 1,800 personnel who conduct background investigations to the Office of Personnel Management. Since the President has no authority to transfer functions across the executive branch, we will urge that he be given that authority.
- Establish more flexible rules for the flow of money through the Department, giving us the ability to move larger sums between programs and priorities, so we can respond quickly to urgent needs.
- Streamline acquisition rules and procedures, to give the Department greater speed and flexibility in the development and deployment of new capabilities.

• Establish a 2-year budget cycle so that the hundreds who invest time and energy to rebuild major programs every year can be freed up and not be required to do so on an annual basis.
• Eliminate some of the onerous regulations that make it impossible or unattractive for many small enterprises to do business with the Department.
• Expand authority for competitive outsourcing, so we can get military personnel out of non-military tasks and back into the field. There is no reason, for example, that the Defense Department should be in the business of making eyeglasses, when the private sector makes them better, faster, and cheaper. But we are. That needs to change.
• Clarify environmental statutes which restrict access to, and sustainment of, training and test ranges essential for the readiness of our troops and the effectiveness of our weapons systems in the global war on terror.
• Expand our flexibility to extend tour lengths for military leaders, and fully credit them for joint duty assignments.
• Establish more flexible military retirement rules, so that those who want to serve longer have the option of doing so—so we can retain talent instead of automatically pushing it out the door.
• Establish sunset procedures for the hundreds of required reports so that we can discontinue those that have outlived their usefulness. We simply must find better ways to exchange data between DOD and Congress, so that you get the information you need to assess performance and we do not have to employ armies of personnel and consultants preparing information you no longer need.

Let there be no doubt, some of the obstacles we face today are self-imposed. Where we have authority to fix those problems, we are working hard to do so. For example, we are modernizing our financial management structures, to replace some 1,800 information systems so we can produce timely and accurate management information. We are reducing staffing layers to increase speed and efficiency. We are modernizing our acquisition structures to reduce the length of time it takes to field new systems and drive innovation. We are working to push joint operational concepts throughout the Department, so we train and prepare for war the way we will fight it—jointly. We are taking steps to better measure and track performance.

We are doing all these things, and more. But to get the kind of agility and flexibility that are required in the 21st century security environment, we must have legislative relief. We must work together—Congress and the administration—to transform not only the U.S. Armed Forces, but the Defense Department that serves them and prepares them for battle. The lives of the service men and women in the field—and of our friends and families here at home—depend on our ability to do so.

2004 Defense Budget

At the same time, we are taking steps to implement the changes agreed upon in the defense review. Last year's budget—the fiscal year 2003 request—was finalized just as that review process was nearing completion. It included a top-line increase, and made important, and long-delayed investments in readiness, people, maintenance, and replacement of aging systems and facilities. We were able to begin funding some transforming initiatives as the new defense strategy came into focus.

But it is really this year's budget—the fiscal year 2004 request before you today—that is the first to fully reflect the new defense strategies and policies.

We submit this budget to you at a time of war. Our experience in the global war on terror has validated the strategic decisions that were made.

When our Nation was attacked, there was a great deal of pressure to put off transformation—people cautioned, you can't fight the global war on terrorism and simultaneously transform this institution. The opposite is the case. The global war on terror has made transforming an even more urgent priority. Our experience on September 11 made clear, our adversaries are transforming the ways in which they will threaten our people. We cannot stand still.

The reality is that while the global war on terror is an impetus for change, it also complicates our task. Balancing risk between near- and long-term challenges is difficult even in peacetime. But today, we must accomplish three difficult challenges at once:

(1) successfully fight the global war on terror;
(2) prepare for near-term threats by making long delayed investments in readiness, people, and modernization; and
(3) prepare for the future by transforming for the 21st century.

The 2004 budget request before you today is designed to help us do all three.

Our defense review identified six goals that drive our transformation efforts:

- First, we must be able to defend the U.S. homeland and bases of operation overseas;
- Second, we must be able to project and sustain forces in distant theaters;
- Third, we must be able to deny enemies sanctuary;
- Fourth, we must improve our space capabilities and maintain unhindered access to space;
- Fifth, we must harness our advantages in information technology to link up different kinds of U.S. forces, so they can fight jointly; and
- Sixth, we must be able to protect U.S. information networks from attack—and to disable the information networks of our adversaries.

The President's 2004 budget requests funds for investments that will support each of these. For example:

- For programs to help defend the U.S. homeland and bases of operation overseas—such as missile defense—we are requesting $7.9 billion in the 2004 budget, and $55 billion over the Future Years Defense Program (FYDP).
- For programs to project and sustain forces in distant theaters—such as new unmanned underwater vehicle program and the Future Combat Systems—we are requesting $8 billion in 2004, and $96 billion over the FYDP.
- For programs to deny enemies sanctuary—such as unmanned combat aerial vehicles, and the conversion of SSBN to SSGN submarines—we are requesting $5.2 billion in 2004 and $49 billion over the FYDP.
- For programs to enhance U.S. space capabilities—such as Space Control Systems—we are requesting $300 million in 2004 and $5 billion over the FYDP.
- For programs to harness our advantages in information technology—such as laser satellite communications, Joint Tactical Radio, and the Deployable Joint Command and Control System—we are requesting $2.7 billion in 2004 and $28 billion over the FYDP.
- For programs to protect U.S. information networks and attack those of our adversaries—such as the Air and Space Operations Center—we are requesting $200 million in 2004 and $6 billion over the FYDP.

Over the next 6 years, we have proposed a 30-percent increase in procurement funding and a 65-percent increase in funding for RDT&E above the 2002 baseline budget—a total investment of around $150 billion annually.

In addition to these increases, RDT&E spending will rise from 36 percent to 42 percent of the overall investment budget. This shift reflects a decision to accelerate the development of needed next generation systems, and by accepting some near-term risk.

Among the more important transformational investments we propose is our request for funds to establish a new joint national training capability. In the 21st century, we will fight wars jointly. Yet our forces still too often train and prepare for war as individual services. That needs to change. To ensure that U.S. forces train like they fight and fight like they train, we have budgeted $1.8 billion over the next 6 years to fund range improvements and permit more of both live and virtual joint training—an annual investment of $300 million.

The total investment in transforming military capabilities in the 2004 request is $24.3 billion, and about $240 billion over the FYDP.

But even as we continue to transform for the future, we must also recognize that new and unexpected dangers are waiting for us over the horizon. To prepare for the threats we will face later in this decade, the 2004 budget requests increased investments in a number of critical areas: readiness, quality of life improvements for the men and women in uniform, and increased investments to make certain existing capabilities are properly maintained and replenished.

Over the next 6 years, the President has requested a 15-percent increase for military personnel accounts, above the 2002 baseline budget, and an increase in funding for family housing by 10 percent over the same period. The 2004 budget includes $1 billion for targeted military pay raises, ranging from 2 percent to 6.25 percent. Out of pocket expenses for those living in private housing drop from 7.5 percent to 3.5 percent in 2004, and are on target for total elimination by 2005.

Over the next 6 years, we have requested a 20-percent increase for operation and maintenance accounts above the 2002 baseline budget. We have added $40 billion for readiness of all the services and $6 billion for facilities sustainment over the same period. These investments should stabilize funding for training, spares, and tempo of operations (OPTEMPO), and put a stop to the past practice of raiding the investment accounts to pay for the immediate operation and maintenance needs, so we stop robbing the future to pay today's urgent bills.

This 2004 budget does not include funds for operations in the global war on terror. Last year, we requested, but Congress did not provide, the $10 billion we knew we would need for the first few months of the global war on terror. Because of that, every month since October 2002—October, November, December in 2002 and January and now February in 2003—we have had to borrow from other programs to pay for the costs of the war—robbing Peter to pay Paul. That does not include the costs of preparations for a possible contingency in Iraq. This pattern is fundamentally harmful to our ability to manage the Department. It causes waste and harmful management practices which consume management time that we cannot afford in a time of war and which are unfair to the taxpayers.

In our 2004 request:

- We increased the shipbuilding budget by $2.7 billion making good on our hope last year that we could increase shipbuilding from five to seven ships.
- We increased the Special Operations budget by $1.5 billion, to pay for equipment lost in the global war on terror and an additional 1,890 personnel.
- We increased military and civilian pay by $3.7 billion.
- We increased missile defense by $1.5 billion, including increased funds for research and development of promising new technologies, and to deploy a small number of interceptors beginning in 2004.

The President has asked Congress for a total of $379.9 billion for fiscal year 2004—a $15.3 billion increase over last year's budget.

That is a large amount of the taxpayer's hard-earned money. To put it in context, when I was in Congress in the 1960s, the United States had the first $100 billion budget for the entire U.S. Government. Nonetheless, for 2004, the DOD budget will amount to roughly 3.4 percent of Gross Domestic Products (GDP)—still historically low. In the mid-1980s, for example, the U.S. was dedicating around 6 percent of GDP to defense.

Nonetheless, it is a significant investment. But compared with the costs in lives and treasure of another attack like the one we experienced on September 11—or a nuclear, chemical, or biological attack that would be vastly worse—less than 3½ cents on the dollar is a prudent investment in security and stability.

But even that increase, as large as it is, only gets us part of the way. Our challenge is to do three difficult things at once:

- Win the global war on terror;
- Prepared for the threats we will face later this decade; and
- Continue transforming for the threats we will face in 2010 and beyond.

Any one of those challenges is difficult—and expensive. Taking on all three, as we must, required us to make tough choices between competing demands. Which meant that, inevitably, some desirable capabilities did not get funded.

So let me state it straight out:

- Despite the significant increase in shipbuilding, we did not get the shipbuilding rate up to the desired steady state of 10 ships per year. Because of planned retirements of other ships, we will drop below a 300-ship fleet during the course of the FYDP. The Navy is in the process of transforming, and has two studies underway for amphibious ships and for submarines—we have increased shipbuilding in 2004, but we do not want to lock ourselves into a shipbuilding program now until we know precisely which ships we will want to build in the outyears.
- We have not been able to modernize our tactical air forces fast enough to reduce the average age of our aircraft fleet.
- We have had to delay completing replenishment of all inadequate family housing by 2007—though we got close!
- We have not fully resolved our so-called "high-demand/low-density" problems—systems like JSTARS, which, because they have been chronically underfunded in the past, will still be in short supply in this budget.
- We opted not to modernize a number of legacy programs—taking on some near-term risks to fund transforming capabilities we will need in this fast moving world.
- We did not achieve the level of growth in the science and technology (S&T) accounts we had hoped for. Our request is $10.2 billion, or 2.69 percent of the 2004 budget. That is below the goal of 3 percent.
- We have delayed investments to completely fix the recapitalization rate for DOD infrastructure. We are reviewing out worldwide base structure, and starting the basic steps to prepare for the 2005 BRAC. We want to think carefully about how best to match our base structure and force structure. We still intend to get the rate down from 148 years to 67 years by

2008, and we expect to accelerate facilities investments in 2006 after we have made the needed decisions with respect to our base structure at home and abroad.

That's the bad news. But there is the good news as well: in making difficult choices between competing priorities, we made better choices this year because we followed the new approach to balancing risks that we developed in last year's defense review—an approach that takes into account not just the risks in operations and contingency plans, but also the risks to people, modernization, and the future—risks that, in the past, had been crowded out by more immediate pressing demands. The result is a more balanced approach and a more coherent program.

While we are requesting increased funds, the Services have stepped up to the plate and will be canceling, slowing, or restructuring a number of programs—to invest the savings in transforming capabilities. For example:

- The Army came up with savings of some $22 billion over the 6-year FYDP, by terminating 24 systems, including Crusader, the Bradley A3, and Abrams upgrades and reducing or restructuring another 24 including medium tactical vehicles. The Army used these savings to help pay for new transformational capabilities, such as the Future Combat Systems.
- The Navy reallocated nearly $39 billion over the FYDP, by retiring 26 ships and 259 aircraft, and merging the Navy and Marine air forces. They invested these savings in new ship designs and aircraft.
- The Air Force shifted funds and changed its business practices to account for nearly $21 billion over the FYDP. It will retire 114 fighter and 115 mobility/tanker aircraft. The savings will be invested in readiness, people, modernization and new system starts and cutting edge systems like unmanned aerial vehicles (UAVs) and unmanned combat aerial vehicles (UCAVs).

In all, by retiring or restructuring less urgent programs, we have achieved savings of some $80 billion over the FYDP—money that will be reinvested by the Services in capabilities necessary for the 21st century.

Finding those savings is important, both in terms of freeing up resources for more urgent priorities, and because it is respectful of the taxpayers' hard-earned money. We feel a deep obligation to not waste the taxpayers' dollars. We need to show the taxpayers that we are willing to stop doing things that we know we don't need to be doing, and take that money and put it into investments we need.

Some critics may argue we cut too deeply. We did cancel a number of programs that were troubled, to be sure, but also others that were not troubled—but which simply did not fit with our new defense strategy. In a world of unlimited resources, they would have been nice to have. But in a world where needs outstrip available funds, we cannot do everything. Something has to give.

Still others argue from the opposite direction—saying that we did not cut deeply enough. They ask: what happened to your hit list? The answer is: we never had a "hit list." What we had was a new defense strategy, and we reviewed all the programs in the pipeline to see if they fit into that defense strategy and the new security environment we face.

Some were eliminated. In other cases, it made more sense to scale them back or change them. For example, the Comanche helicopter program was born in the 1980s, and the Army planned to buy around 1,200 of them. But in the interim, the Army decided to change its structure. In the way the Army plans to fight in the decades ahead, the role of the helicopter changes—it will be used more for reconnaissance and light attack. For that mission 1,200 helicopters weren't needed—so we brought the number down to about 650.

In still other areas, we set up competition for future missions. For example, in tactical aircraft, by 2010 the F–22 will be nearing the end of its planned production run, the Joint Strike Fighter (JSF) will be coming on line, a number of UCAVs will be ready, and hypersonic systems could be within reach. As a result, future Presidents will have a rich menu of choices for strike operations we don't now have.

We are transforming the way we develop new systems. The old way was to develop a picture of the perfect system, and then build the system to meet that vision of perfection, however long it took or cost. The result was that, as technology advanced, and with it dreams of what a perfect system could do, capabilities were taking longer and longer to develop and the cost of systems increased again and again—time is money.

Our approach is to start with the basics, simpler items, and rollout early models faster—and then add capabilities to the basic system as they become available. This is what the private sector does—companies bring a new car or aircraft on line, for

example, and then update it over a period of years with new designs and technologies. We intend to do the same.

Take, for example, our approach to ballistic missile defense. Instead of taking a decade or more to develop someone's vision of a "perfect" shield, we have instead decided to develop and put in place a rudimentary system by 2004—one which should make us somewhat safer than we are now—and then build on that foundation with increasingly effective capabilities as the technologies mature.

We intend to apply this "spiral development" approach to a number of systems, restructured programs, and new starts alike over the course of the FYDP. The result should be that new capabilities will be available faster, so we can better respond to fast moving adversaries and newly emerging threats.

As a result of all these strategic investments and decisions, we can now see the effects of transforming begin to unfold. Consider just some of the changes that are taking place:

- Today, the missile defense research, development, and testing program has been revitalized and we are on track for limited land/sea deployment in 2004–2005.
- Today, the Space Based Radar, which will help provide near-persistent 24/7/365 coverage of the globe, is scheduled to be ready in 2012.
- In this budget, we believe SBIRS-High is properly funded.
- Today, we are converting four Trident SSBN subs into conventional SSGNs, capable of delivering special forces and cruise missiles to denied areas. Today, we are proposing to build the CVN–21 aircraft carrier in 2007, which will include many new capabilities that were previously scheduled to be introduced only in 2011.
- Today, instead of one UCAV program in development, the X–45, which was designed for a limited mission: suppression of enemy air defense, we have set up competition among a number of programs that will produce UCAVs able to conduct a broad range of missions.
- Today, we are revitalizing the B–1 fleet by reducing its size and using savings to modernize remaining aircraft with precision weapons, self-protection systems, and reliability upgrades—and thanks to these efforts, I am told the B–1 now has the highest mission capable rates in the history of the program.
- Today, in place of the Crusader, the Army is building a new family of precision artillery—including precisions munitions and Non-Line-of-Sight Cannon for the Future Combat Systems.
- Today, we have seen targeted pay-raises and other reforms help retain mid-career officers and NCOs, so that fewer of them leave the Service while still in their prime, so the country can continue to benefit from their talent and experience.

These are positive changes that will ensure that future administrations will have the capabilities they need to defend the country, as well as a menu of choices which they can then select from to shape the direction of the Department a decade from now, as the 21st century security environment continues to change and evolve.

CONCLUSION

Finally, I believe that the transparency of the process we have used to develop this budget has been unprecedented. For several months now, we have been providing detailed briefings to those interested in defense here on Capitol Hill, so that Congress is not simply being presented with the President's budget today, but has been kept in the loop as decisions were being made. Our goal was to ensure that Members and staff have had every opportunity to better understand the thinking that lies behind these proposals. I am told that the extent of consultation from the Defense Department to Congress this year has been unprecedented.

I hope you will take this as evidence of the fact that we are serious about our commitment to transform not only our Armed Forces, but to transform DOD's relationship with Congress as well. Whether each Member will agree with each of the individual decisions and recommendations that have been made in this budget, the fact is that it has been developed in an unprecedented spirit of openness and cooperation.

We hope that this spirit of openness and cooperation can continue as Congress deliberates this year both the President's budget and the legislation we are now discussing with you and will be sending to transform the way the Defense Department operates. We must work together to bring DOD out of the industrial age, and help get it arranged for the fast-paced security environment of the 21st century.

I close by saying that transformation is not an event—it is a process. There is no point at which the Defense Department will move from being "untransformed" to "transformed." Our goal is to set in motion a process of continuing transformation, and a culture that will keep the United States several steps ahead of any potential adversaries.

To do that we need not only resources, but equally, we need the freedom to use them with speed and agility, so we can respond quickly to the new threats we will face as this century unfolds.

Thank you Mr. Chairman.

Chairman WARNER. Before I go on to General Myers, you said the level of consultation was unprecedented, and that was in a positive vein. I assure you that we have achieved a high water mark of any President and his team of trying to keep Congress informed. Thank you.

General Myers.

STATEMENT OF GEN. RICHARD B. MYERS, USAF, CHAIRMAN, JOINT CHIEFS OF STAFF

General MYERS. Chairman Warner, Senator Levin, distinguished members of the committee, I thank you for the opportunity to appear before you today and to report on the state of the United States Armed Forces. Mr. Chairman, you have already said that my prepared remarks will be entered in the record and I thank you for that. I will just make a few short introductory remarks and we'll get on to questions.

Today around the world our soldiers, sailors, airmen, marines, and coastguardsmen remain engaged in a wide variety of missions. Many of these missions are done far from the public eye. Yet, there is no more important task before them than to bring the fight to the terrorists. Active duty, Reserve, and DOD civilians, together with members of the interagency and coalition partners, form one team in this effort.

Our service men and women remain a highly effective instrument of national power. Every day this team helps disrupt and capture terrorist cells around the world. In addition, our combined efforts in Afghanistan have accomplished a great deal over the past year. We have restored hope to the people of Afghanistan and that nation is on the way to recovery. Clearly, there is still much work to be done in Afghanistan, as there is on the war on terrorism.

As the President and Secretary of Defense have said, this war will last a long time. But let there be no doubt, we will win this conflict. No matter what task we in the Armed Forces confront, I am convinced that improving our joint warfighting capability will be central to our future success.

So let me take a minute to share with you what we are doing in that area. As you look at joint warfighting today and tomorrow, improving our command and control capabilities is the single most essential investment we can make, in my view. Enhanced command and control combined with intelligence that is rapidly shared among the warfighters will allow our joint commanders to integrate and unite separate service capabilities in a single operation or across the campaign. In my view that translates directly to increased efficiencies but more importantly to increased effectiveness.

To reinforce this potential, the President directed Joint Forces Command to focus on transforming our joint team to meet the chal-

lenges of this new century. As a result, this command's efforts included the first major joint field experiment, Millennium Challenge 02. This experiment demonstrated a variety of new concepts and systems that enable critical command and control, collaborative information sharing and time sensitive targeting capabilities. Investment in these capabilities is essential to winning in combat today and particularly in the future.

In fact, General Franks and Central Command are using concepts, technologies, and capabilities from Millennium Challenge 02 in their current operational planning for Iraq.

One of the positive results from Millennium Challenge 02 is the potential for a joint commander to communicate with his or her forces while en route to a crisis area. Near-term technical solutions will allow the joint team to keep situational awareness of the battlefield while converging from dispersed areas. Most importantly, they will allow a commander to employ forces without sectors or deconfliction matrices we've used in the past, making us much more efficient and effective on the battlefield.

Joint Forces Command's efforts in these areas will help us ensure that operational concepts and technical command and control solutions that we develop in the future are in effect born joint.

Our emerging command and control, intelligence, surveillance, and reconnaissance capabilities must allow the Services to rapid and repeatedly plug into each other's information and then play or operate as one joint team. As such, future weapons systems and delivery platforms must be weighted towards what they bring to the joint warfighting team. Our approach to improving command and control networks reflects our larger approach to upgrading our forces in general.

Clearly, we must balance near-term recapitalization and modernization with long-term investments to transform the force for the future. In the first case, we are ensuring our joint team is as capable as possible for today's missions, and in the second case, we are ensuring we are relevant to dominate a range of military operations for tomorrow.

With your support, we can ensure our men and women in uniform have the best tools and technologies possible.

Investments in hardware are only part of the task to keep our force ready. To meet these challenges, we must continue to invest in our people and their skills. Your commitment to improving joint professional military education will be one way to ensure our warfighters have the intellectual foundation to meet the unknown challenges they will face, and your support to fund the training and to equip our troops with the most capable systems sends a very powerful message of support.

You also demonstrated your commitment by ensuring they have the quality of life they deserve, in terms of pay, housing, and medical care. This committee, along with the rest of Congress and administration, has made quality of life improvements a top priority.

Our world class troops and their families deserve first class support and you have always been there for them, and on their behalf I thank you for your continued support.

[The prepared statement of General Myers follows:]

PREPARED STATEMENT BY GEN. RICHARD B. MYERS, USAF

It is an honor to report to Congress on the state of the U.S. Armed Forces.

Today, our Nation's soldiers, sailors, airmen, marines, and coastguardsmen operate in an environment characterized by opportunity and danger. In the wake of September 11, U.S. forces are now deployed to an unprecedented number of locations. Our forces also operate with a wider array of coalition partners to accomplish more diverse missions.

These operations are required, as the world remains a dangerous place. In recent months, terrorists have successfully conducted numerous attacks—in the Middle East, Africa, and Southeast Asia. The loss of innocent lives serves as a poignant reminder that terrorists' evil has no moral or territorial limits. Coalition discoveries in Afghanistan and other places confirm that al Qaeda actively seeks weapons of mass destruction. This network remains active and determined to conduct more attacks against the U.S. and our allies.

At the same time, other threats to U.S. interests have not abated. U.S. Armed Forces remain focused on preparing for potential regional conflict. The proliferation of advanced technology, weapons, and associated expertise has increased the probability that our adversaries will be capable in the future of fielding significantly more robust and lethal means to attack the U.S. and our interests. In December 2002, North Korea announced that it would resume its nuclear program. Iraq has used chemical and biological weapons in the past and would likely use them again in the future. Iraq is also aggressively seeking nuclear weapons. These facts create imperatives for our Nation's Armed Forces. All the while, U.S. forces remain prepared to confront the consequences of factional strife in distant lands and respond to humanitarian disasters.

The President's National Security Strategy provides a new focus for our Nation's Armed Forces. Based on detailed analysis in the most recent 2001 Quadrennial Defense Review, the Defense Department adopted a new defense strategy. Today, we must be ready to assure our allies, while we dissuade, deter, and defeat any adversary. We possess the forces necessary to defend the United States homeland and deter forward in four critical regions. If required, we will swiftly defeat the efforts of two adversaries in an overlapping timeframe, while having the ability to "win decisively" in one theater. In addition, our forces are able to conduct a limited number of lesser contingencies, maintain a sufficient force generation capability, and support a strategic Reserve.

At home, the establishment of the United States Northern Command (NORTHCOM) has significantly improved the preparedness, responsiveness, and integration between the U.S. military and other Federal agencies defending our homeland. NORTHCOM is an integral part of the rapidly expanding interagency network supporting homeland defense.

Our Nation's entire Armed Forces remain as engaged today as at any time since the Second World War. The war on terrorism remains our primary focus. In concert with other instruments of national power, our Armed Forces are tracking down al Qaeda in Afghanistan and around the world. Simultaneously, we are operating in the No-Fly Zones over Iraq, enforcing U.N. sanctions in the Arabian Gulf, facilitating reconstruction in Afghanistan, conducting peacekeeping operations in the Balkans, supporting our partners in South America against narcotics trafficking and terrorist cells, preserving stability in the Korean Peninsula, and defending the American homeland. Clearly, the American people should know that their Armed Forces are operating at a high tempo.

As a result of this unprecedented strategic environment, I have established three priorities as Chairman of the Joint Chiefs of Staff: To win the war on terrorism, to improve joint warfighting, and to transform our Nation's military to face the dangers of the 21st century. These priorities also reflect the priorities of the Secretary of Defense. Combined with the President's vision, the Secretary's leadership, the support of Congress and the selfless service of our Nation's soldiers, sailors, airmen, marines, coastguardsmen, and civilian workforce—our Nation's Armed Forces are making progress in each of these areas.

Al Qaeda was not created in a single day. It formed over the course of a decade or more prior to September 11, 2001. It cannot be destroyed in a day or a year—it will require a commitment of many years. We recognize that dangerous and difficult work remains. The following highlights recent successes and describes what additional actions are required to protect our Nation in our dynamic security environment.

WAR ON TERRORISM

For the past 16 months, the U.S. Armed Forces, in concert with other Federal agencies and our coalition partners, have conducted a determined campaign to defeat the most potent threat to our way of life—global terrorist organizations. Operation Enduring Freedom has dealt a severe blow to the al Qaeda transnational network. About 50 key al Qaeda officials, operatives, and logisticians have been killed or captured. Numerous other operatives have also been removed; however, al Qaeda remains a formidable and adaptive peril to our Nation and our partners.

Our successes reflect the careful integration of all instruments of national power. This war against terrorists requires the inclusive commitment of the military, financial, economic, law enforcement, and intelligence resources of our Nation. On the international level, the military support and cooperation has been remarkable. Until August of last year, when we determined it was no longer required, NATO provided Airborne Early Warning Aircraft to supplement our E–3 aircraft patrolling over American cities. NATO allies remain with us in Afghanistan and patrolling the oceans to interdict terrorists and their weapons or resources. More than 90 nations share our resolve and contribute daily to the goal of destroying al Qaeda. As part of this effort, numerous bilateral counterterrorist exercises and exchanges have been conducted around the world.

At the national level, the Defense Department has made numerous adjustments. The creation of the Joint Interagency Task Force for Counterterrorism enables the rapid flow of information and analysis from national resources to the battlefield. Likewise, Combatant Commanders established Joint Interagency Coordination Groups to share information, coordinate actions, and streamline operations among military, intelligence and law enforcement agencies. At U.S. Special Operations Command, the Counterterrorism Campaign Support Group combines the expertise and resources of the Departments of State, Treasury, and Justice and the CIA with our Special Operations warriors at the operational level. The Counterterrorism Campaign Support Group fuses intelligence, interagency, and military activities in a seamless organization.

CURRENT OVERSEAS OPERATIONS

In Afghanistan, our greatest success has been to deny al Qaeda an operating haven. Today, Afghanistan has the first true chance for peace in 23 years. More than 2 million Afghan people have returned home. We are in the final stages of Phase III (Decisive Operations). Phase III has severely degraded al Qaeda's operational capabilities and their ability to train new members. Their support continues to decline among the Afghan people. Pockets of Taliban and al Qaeda resistance remain within Afghanistan primarily along the Pakistani border. Nonetheless, overall conditions may permit us to soon shift to Phase IV (Stability Operations). Once the President decides to move into Phase IV, we will increase the civil and reconstruction assistance to the Afghan government. Stability operations will require a great deal of support from the international community to be successful.

This past year, a key task to promote stability began with training of the Afghan National Army. The U.S. spearheaded the development of this force with training, equipment, and force structure requirements. The Afghan National Army's first five battalions have completed basic training at the Kabul Military Training Center. More than 1,300 troops began advanced training as of December. The sixth battalion is currently in basic training and soon we will begin select officer training. The French have funded the initial salaries for the recruits for all six battalions and provided half of the training. Recently trained forces are integrating with our forces throughout the countryside. To date, the international community has donated $40 million worth of equipment. Our military forces will be part of an ongoing commitment to provide equipment and expertise.

The International Security Assistance Force in Afghanistan continues its role mandated by the Bonn Agreement and U.N. Security Council resolutions. Today, Germany and the Netherlands are preparing to share leadership responsibilities of the International Security Assistance Force as they take over in February 2003. They follow the example set by the United Kingdom and Turkey. Twenty-two nations contribute more than 4,500 troops to this vital mission.

In January 2002, United States Central Command (CENTCOM) proposed a concept of operations to disrupt terrorist operations in and around Yemen. Central to this plan, CENTCOM proposed to strengthen Yemeni Special Forces, capability for counterterrorism operations and expand intelligence, surveillance, and reconnaissance operations. Yemeni Special Forces have been trained on counterterrorism tactics and procedures and are currently receiving maritime counterterrorism training.

The working relationship between the U.S. and Yemeni Government has greatly improved as a result of this training program.

CENTCOM also established Joint Task Force Horn of Africa (JTF–HOA) as part of its Theater Counterterrorism Campaign. In December 2002, JTF–HOA stood up while embarked on U.S.S. *Mount Whitney*. JTF–HOA provides CENTCOM a regional counterterrorism focus in East Africa and Yemen. It exercises command and control of counterterrorism operations for this area. The JTF–HOA staff will remain embarked on U.S.S. *Mount Whitney* for 4 to 6 months until the infrastructure is in place ashore at Camp Lemonier, Djibouti.

Meanwhile, CENTCOM and Allied Forces continue Maritime Interception Operations in the Arabian Gulf to enforce U.N. sanctions against Iraq. In 2002, Coalition Forces diverted over 800 vessels suspected of carrying illegal Iraqi oil. This reflects a significant increase over the 115 vessels diverted in 2001.

United States European Command (EUCOM), through its Special Operations Command, Europe, began the Georgia Train and Equip Program to build a Georgian capability to deal with the terrorist presence in the Pankisi Gorge. EUCOM developed a plan to train three staffs, four battalions and one Mechanized/Armor company team. EUCOM has completed training the Georgian Ministry of Defense staff, the Land Forces Command staff and the first battalion. In December, Commander, EUCOM directed Marine Forces Europe to assume the Georgia Train and Equip Program mission, which will resume training in February. Six other allies contributed nearly $2 million in materiel reflecting the international nature of this program.

In July, the President approved Expanded Maritime Interception Operations to interdict terrorists and their resources. With this order, the President authorized commanders to stop, board, and search merchant ships identified to be transporting terrorists and/or terrorist-related materiel. Expanded Maritime Interception Operations are focused on EUCOM and CENTCOM's Areas of Responsibility (AORs) while PACOM and the other Combatant Commanders are developing Expanded Maritime Interception Operations plans. Eleven nations provide forces for Maritime Interception Operations within the CENTCOM AOR. German and Spanish senior officers command parts of these operations—reflecting the coalition commitment to the war on terrorism. So far, EUCOM's Maritime Interception Operations have stopped 14 ships. NATO maritime and air forces support the Maritime Interception Operations within EUCOM's AOR.

In Europe, we support NATO's plan to transition Stabilization Forces in Bosnia-Herzegovina to a minimal presence and Kosovo forces to a reduced presence by the end of 2004. In the spring of 2003, the NATO Military Committee will review the proposed force structure reductions and restructuring for Bosnia and Kosovo. Our presence in the Balkans has not only promoted peace in the region, it has also enhanced our ability to conduct counterterrorism operations.

During this past year in support of Operation Enduring Freedom—Philippines, U.S. Pacific Command (PACOM) has provided the Armed Forces of the Philippines military advice and assistance in targeting Abu Sayyaf Group terrorist activities in the Philippines. U.S. forces could be available to provide follow-on advice and assistance if requested by the Government of Philippines, and approved by the President and the Secretary of Defense. In concert with these efforts supporting Operation Enduring Freedom, Congress has approved the Security Assistance Funding necessary to provide counterterrorism training for the armed forces of the Philippines. Training will begin in the February/March timeframe.

United States Southern Command (SOUTHCOM) continues to support counter-narcotics trafficking and counterterrorism efforts in South America. In accordance with new Presidential policy and expanded legislative authority, we are assisting the Colombian military in its fight against designated terrorist organizations by providing advice, training, and equipment. Our current operations are built on preexisting counter-narcotics missions. U.S. troops are currently training the Colombian military to protect critical infrastructures, such as the Cano Limon Pipeline. In addition personnel will deploy in fiscal year 2003 to serve as Operations and Intelligence Planning Assistance Teams at selected units to assist the Colombian military in its fight against terrorism. This assistance will continue over the next several years. The U.S. military presence in Colombia is limited to the troop caps established by Congress, in terms of uniformed and contract personnel.

The Tri-Border Area of Argentina, Brazil, and Paraguay is a focal point of increased drug and arms trafficking, money laundering, document fraud, and Islamic terrorist-supported activities. U.S. and Brazilian officials estimate that between $10–$12 billion USD/year flows through the Tri-Border Area, some of which is diverted to known terrorist groups such as Hizballah and Hamas.

Commander, SOUTHCOM continues detainee operations (detention and intelligence collection missions) at Guantanamo Bay, Cuba. While the detainees are not entitled to the status of Enemy Prisoners of War, the President and the Secretary of Defense have directed that the U.S. Armed Forces treat them humanely and to the extent appropriate and consistent with military necessity, consistent with the principles of the Geneva Conventions. SOUTHCOM has constructed an additional 190 medium security units to augment the 816 holding units and fortified billeting structures for U.S. military personnel assigned. Almost 2,000 U.S. military personnel are deployed to Guantanamo Bay in support of detainee operations. The President issued an order on November 13, 2001, authorizing use of military commissions to prosecute individuals subject to the order for offenses against the laws of war and other applicable laws. To date, no one has been made specifically subject to the order, and therefore, no one has been prosecuted by military commission. The Secretary of Defense appointed the Secretary of the Army to lead war crimes investigations. A few of those detained at Guantanamo determined to be of no intelligence or law enforcement value or threat to the U.S. or its interests, have been released and returned to their countries of origin.

We view Guantanamo Bay as a national asset that supports our work in securing intelligence vital to success in the war on terrorism and protection of our homeland. It also supports interagency and international intelligence and law enforcement efforts. Interrogations at Guantanamo Bay have resulted in intelligence of high value. Information gathered from known terrorists held at Guantanamo Bay has helped us to define and disrupt the global terrorist threat.

UNIFIED COMMAND PLAN 2002

On 1 October 2002, we implemented the 2002 Unified Command Plan, as directed by the President. The 2002 Unified Command Plan, and its subsequent Change 1, created United States Northern Command (NORTHCOM), disestablished United States Space Command (SPACECOM) and combined SPACECOM's missions and forces with United States Strategic Command (STRATCOM), thereby establishing a "new" STRATCOM.

UNITED STATES NORTHERN COMMAND AND HOMELAND SECURITY

NORTHCOM's mission is to deter, prevent, and defeat threats and aggression aimed at the U.S. and its territories. When directed, NORTHCOM provides military assistance to civil authorities, including consequence management. Commander, NORTHCOM is dual-hatted as Commander, North American Aerospace Defense Command (NORAD). NORAD has control of the air defense of CONUS. Land and Maritime operations are controlled by NORTHCOM.

NORTHCOM stood up its combatant command staff and accepted Homeland Defense missions and tasks from United States Joint Forces Command (JFCOM) and other combatant commands. It has also developed a plan to reach its full operational capability. Currently, NORTHCOM is engaged with Federal and State agencies, the National Guard and NORAD to plan and exercise a variety of homeland defense and civil support tasks. Simultaneously, NORTHCOM is cultivating closer relationships with our North American neighbors.

As part of this effort, NORTHCOM's Standing Joint Task Force Civil Support provides command and control for DOD forces supporting the lead Federal agency managing the consequences of chemical, biological, radiological, nuclear, or high-yield explosive incidents in addition to natural disasters. As such, Joint Task Force Civil Support provides a sustained planning staff that has formed a habitual relationship with key Federal and State agencies plus communities nationwide.

NORAD's responsibilities for air and ground early warning systems and alert fighter support in defense of CONUS, Canada and Alaska remain unchanged. In addition, NORAD is identifying the infrastructure needed for the defense of the National Capital Region.

On December 9, 2002, the U.S. and Canada agreed to create a new bi-national land, maritime, and civil support military planning group at NORAD to help examine potential responses to threats and attacks on the U.S. or Canada. This initiative will advance our ability to defend our Nation.

Last year Operation Noble Eagle flew over 14,000 sorties even while our current operations overseas required key resources. These sorties represent NORAD's contributions to Operation Noble Eagle and defense of the American homeland.

UNITED STATES STRATEGIC COMMAND

United States STRATCOM's mission is to establish and provide full-spectrum global strike, coordinate space and information operations capabilities to meet both

deterrent and decisive national security objectives. STRATCOM retains its nuclear triad of submarine, bomber, and missile forces.

On 10 January 2003, the President signed Change 2 to the Unified Command Plan. This latest change assigned four emergent missions to STRATCOM and reflects the U.S. military's increased emphasis on a global view. These new missions include missile defense, global strike, DOD information operations and global command, control, communications, computers, intelligence, surveillance, and reconnaissance. Missile defense is an inherently multi-command and multi-regional task. STRATCOM will serve as the primary advocate in the development of missile defense operational architecture. With its global strike responsibilities, the Command will provide a core cadre to plan and execute nuclear, conventional, and information operations anywhere in the world. STRATCOM serves as the DOD advocate for integrating the desired military effects of information operations. These initiatives represent a major step in transforming our military and in implementing the new strategic triad envisioned in the 2001 Nuclear Posture Review.

STRATCOM will also continue the former U.S. Space Command's legacy of providing space support for our joint team. The Global Positioning System (GPS) offers an excellent example of how space systems enhance our Joint Warfighting Team. The GPS's worldwide position, navigation, and timing information give U.S. forces an all-weather, precision engagement capability. As an example of one application, the U.S. Army fielded a blue force tracking system—a space-based tool that gives commanders awareness of their units' locations.

U.S. military space superiority requires continued advances in space control and access along with the cooperation of our allies. The European Union, for example, is developing Galileo, a civil satellite navigation system that risks our enhancement to military GPS. As currently designed, the Galileo signal will operate in the same bandwidth as our GPS system's civil and military signals. When Galileo begins operating, its signals will directly overlay the spectrum associated with our new GPS military code. Continued negotiations to resolve this political issue with the European Union is essential to ensuring our joint team maintains the advantages of GPS in combat.

Concurrent with these ongoing operations, the Services, Joint Staff, and Combatant Commands have pursued a 15-percent major headquarters reduction. To date, DOD headquarters personnel have been reduced by more than 11 percent. Given commitments around the world today, any further reductions beyond those already taken could adversely impact our ability to meet the demands of the war on terrorism, Homeland Security, global military presence and respond to any new threats. Nonetheless, the Service Chiefs, Combatant Commanders, and I continue to explore ways to reduce and streamline headquarters functions.

ANTITERRORISM/FORCE PROTECTION

Antiterrorism/Force Protection remains a top priority for all commanders. Our adversaries—unable to confront or compete with the United States militarily—have and will continue to use terrorist acts to attack U.S. citizens, property, and interests—to include military bases and personnel. In the fiscal year 2003 budget, the Antiterrorism/Force Protection portion of the Combating Terrorism budget totaled $9.3 billion. The terrorist threat environment has forced us to maintain a higher worldwide Force Protection Condition for longer periods of time. In the short term, this task is being met with an increase in manpower.

For example, EUCOM is currently at Force Protection Condition Bravo. In the short-term, additional troops are required to guard U.S. military bases throughout EUCOM's theater. In the long-term, the Secretary of Defense directed us to pursue new technologies that will reduce the manpower footprint while improving force protection, as well as seeking host nation support for the force protection mission.

The Combating Terrorism Readiness Initiative Fund helped provide immediate Antiterrorism/Force Protection off-the-shelf technology to Combatant Commanders to satisfy emergent requirements that could not wait for the normal budget process or long-term technical solutions. Last year's funded systems included explosive detection systems that enhanced access control, intrusion detection systems that provided broader perimeter security while reducing manpower requirements and chemical/biological (Chem/Bio) detection systems to improve installation defense capabilities. The Department authorized $47 million this past year for the Combating Terrorism Readiness Initiative Fund, nearly twice the fiscal year 2000 expenditure.

To support the Combatant Commanders' Antiterrorism/Force Protection efforts, the Joint Staff Integrated Vulnerability Assessment Teams will visit 95 military installations worldwide this year. Joint Staff Integrated Vulnerability Assessment Teams assess physical security measures, infrastructure support and structural

vulnerabilities, intelligence collection and dissemination capabilities and the installation's ability to respond to terrorist incidents. Over 500,000 personnel received "General Antiterrorism Awareness" training last year. This on-line training is now also available to DOD family members.

The Defense Department also finalized prescriptive antiterrorism engineering and construction standards to improve survivability of our personnel from the effects of an explosive device. In large part because the Pentagon renovation project followed design strategies based on these new antiterrorism construction standards, the damage and loss of life from the Pentagon attack was significantly reduced.

U.S. forces' antiterrorism capabilities are seen as a standard worldwide. NATO sought U.S. military expertise to improve antiterrorism training for all NATO forces. As a result, last summer, NATO approved policy guidance that clarified antiterrorism responsibilities for non-Article 5 operations, delineated minimum unit antiterrorism plan requirements and increased emphasis on weapons of mass destruction defense and consequence management planning. The U.S. will assist NATO to implement this important guidance.

We are working hard to expand and improve our capabilities to protect our personnel against chem/bio agents. DOD initiated vaccinating select segments of the force against anthrax and smallpox. Our medical treatment capabilities must expand to include improved treatment against weapons of mass destruction while providing additional medical countermeasures, surveillance systems and response teams.

We improved overall joint force readiness by our recent procurement of improved chem/bio defensive protective clothing, masks, and detection systems. This equipment is significantly more reliable, better at agent detection and further enhances our forces' overall capability to operate in the chem/bio environment.

In the area of installation protection, we have improved detection systems plus consequence management assessment and training capabilities at 23 of our overseas bases. In addition, we performed a thorough assessment of our detection and first responder capabilities at nine key CONUS installations. These lessons learned will guide development of a comprehensive plan to improve chem/bio defense at more than 200 bases over the next 6 years. Although we improved our chem/bio capabilities, fighting a war in this environment remains a serious challenge. Therefore, we must continue to fund research, development, and acquisition projects that ensure our forces can operate successfully in this adverse environment.

READINESS FOR FUTURE OPERATIONS

The readiness of our general-purpose forces, whether forward deployed, operating in support of contingency operations or in Homeland Defense, continues to be solid. U.S. forces are well trained and in general, possess the personnel, equipment, and resources needed to accomplish the military objectives outlined in the Defense Strategy.

In light of the current pace of operations, it is notable that active U.S. Army divisions maintain high readiness levels. U.S. Air Force aircraft mission capable rates improved over the past 6 months. U.S. Navy forces continue to meet readiness goals for both the deployed and non-deployed segments of the force. The U.S. Marine Corps is ready to meet the demands of current and potential operations. While ongoing global operations increased the workload on the Nation's military focus, these forces remain prepared to accomplish their wartime tasks.

Material readiness has improved substantially in part, due to the tremendous support of Congress. One example is munitions, where recent supplemental measures have allowed Combatant Commanders to increase stockpiles of key all-weather and advanced precision-guided munitions. These munitions enable the joint team to place at risk a wide array of enemy targets. Funding increases this past year dramatically increased precision-guided munitions production rates, and selected production rates should be near maximum capacity by August 2003. Continued congressional support is critical to build munitions and materiel inventories to levels that meet warfighting requirements.

While the force is ready, this past year significantly stressed the readiness of several critical enablers. Our intelligence forces operate under increased pressure as a result of the war on terrorism. Key skill sets (like targeteers, linguists, and police-like investigative skills) are in short supply. Recognizing this fact, our intelligence, surveillance and reconnaissance forces must mature into a more adaptable and flexible contingency collection capability. Many systems were developed to meet a cold war threat and provide excellent force-on-force collection capability. The ingenuity of our soldiers, sailors, airmen, marines, and coastguardsmen has allowed many systems to perform a valuable role in the war on terrorism.

The present posture of the military intelligence forces, for the long-term war on terrorism is improving, but many challenges remain. This global war clearly demonstrates the need for persistent long-loiter intelligence, surveillance, and reconnaissance platforms. Military intelligence also requires low observable unmanned aerial vehicle systems, close-access sensors, and a greater emphasis on human intelligence collection. In addition, all intelligence communities must provide an information architecture that provides a "push and pull" capability for the joint warfighter, law enforcement and counter-intelligence personnel. We must shift our attitudes away from the mindset of a "need to know" to one of "need to share."

Our strategic mobility triad (airlift, sealift, and prepositioned materiel) provides us the capability to swiftly move forces around the world. The U.S. remains the only nation who can routinely move units and materiel globally with confidence and speed. While our airlift and air refueling assets performed magnificently in support of the war on terrorism, this high operational demand is accelerating the aging of C–5 and tanker aircraft and created unanticipated wear and tear on our C–17 fleet. As a result, strategic airlift remains one of our top priorities. The C–17 multi-year procurement plus the C–5 Re-engining and Reliability Enhancement Programs are major steps to meet the minimum wartime airlift capacity of 54.5 million ton miles/day. The follow-on multi-year procurement with Boeing for 60+ C–17s will bring the total C–17 fleet to 180 aircraft in 2007. As a corollary priority, replacing the 40-year-old KC–135 air refueling fleet is an essential joint warfighting requirement.

With congressional support, our strategic sealift achieved the Mobility Requirements Study-05 goals for surge and prepositioned fleet sealift requirements. The maintenance of our organic sealift fleet remains a high priority to ensure we can deploy sufficient force to support routine and contingency operations. To support greater levels of mobilization, DOD can also access additional U.S. commercial shipping through the Voluntary Intermodal Sealift Agreement. This agreement is critical to ensure that adequate sealift capacity (and associated mariners) is available to support DOD requirements during wartime. We are working closely with the Department of Transportation to ensure these requirements can be met.

Our prepositioned material reduced response time in key theaters. This critical readiness program enables our success in the war on terrorism and other contingency operations.

For intratheater mobility, the Department recognizes the Joint Venture, High-Speed Vessel as a promising delivery platform. This vessel employs off-the-shelf technology and can operate in austere locations where mature seaports do not exist. Combatant Commanders praise this vessel for rapidly and efficiently moving personnel and equipment. Future operations will also rely on strong enroute infrastructures that support strategic mobility requirements. The dynamic nature of the war on terrorism and other potential contingencies dictates that we be prepared to establish new enroute bases to support deployments to austere locations. In addition, we must fully fund the existing enroute infrastructure to sustain its capability. Future success in operations depends upon effective training today and tomorrow.

Last May, I wrote Congress about my grave concern over the adverse impacts and unforeseen consequences that the application of various environmental laws are having on military training and testing activities and consequentially on the readiness of our Armed Forces. Last year, Congress provided temporary relief, but only for one statute. While measuring the impact of inflexible or overbroad environmental requirements is difficult, my professional assessment is that the impacts and consequently the challenge we face in providing the most effective training weapons and sensors, has grown. Enough is known right now to convince me that we need relief. We are not abandoning our outstanding stewardship over the lands entrusted to us or retreating from environmental protection requirements. We are trying to restore balance when environmental requirements adversely affect uniquely military activities necessary to prepare for combat. I ask that you carefully consider the proposed changes that the DOD brings forward and provide the tailored relief we seek.

The current pace of operations and future potential operations continues to require the Services and Combatant Commanders to carefully manage assets and units that are in high demand, but in small numbers. The demand for critical capabilities (such as manned and unmanned intelligence, surveillance, and reconnaissance assets, special operations forces, intelligence analysts and linguists and command and control assets) increased significantly as a result of multiple contingencies. We will continue to prioritize the tasks given these critical units to preserve our surge capability for future operations.

Our number one asset remains the men and women serving in the Armed Forces. They have the educational depth, the innovative spirit and mental agility that transforms technology into an effective military force. Their service and dedication deserve our full support to seek ways to improve their quality of life. The adminis-

tration, Congress, and DOD made raising their standard of living a top priority. This year's legislation provided an across-the-board military pay raise of 4.1 percent and targeted increases of up to 6.5 percent for junior personnel. This year's out-of-pocket housing expense reduction from 11.3 percent to 7.5 percent is a sound investment, as are future targeted pay increases based on the Employment Cost Index plus one half percent. Our troops and their families greatly appreciate continued congressional support for these initiatives, plus efforts to improve family and unaccompanied housing. Such congressional action directly impacts recruitment, retention, and family welfare. I view these all as inseparable from operational combat readiness.

No discussion of those who serve is complete without mentioning the exceptional service of our guardsmen and reservists. In the first 15 months of Operation Enduring Freedom (OEF), nearly 85,000 of them served on active duty. Like their active duty counterparts, their service balances their duty to the Nation and their commitment to their families. These citizen-warriors, however, must also balance an obligation to their civilian employers. These past few months demonstrated our increased reliance on our Reserve components to defend the Nation's coastlines, skies, and heartland, as well as protect our interests worldwide. We also gained a deeper appreciation that today's Reserve personnel have the competence, dedication, and leadership that make them indistinguishable from their active-duty counterparts.

IMPROVING JOINT WARFIGHTING CAPABILITIES

The U.S. Armed Forces' ability to conduct joint warfare is better today than anytime in our history, due in part to the tremendous support of Congress. Nonetheless, many challenges remain. Our joint team is comprised of the individual warfighting capabilities of the services. To improve our joint warfighting capability, we must maximize the capabilities and effects of the separate units and weapons systems to accomplish the mission at hand—without regard to the color of the uniforms of those who employ them. This challenge demands that we integrate service core competencies together in such a way that makes the whole greater than the sum of its parts. Our operational architectures must be inclusive and not exclusive in terms of capabilities and desired effects. We must integrate—not deconflict—our operations.

To support these efforts, on 1 October 2002, we changed the mission and focus of JFCOM. Today, the men and women of JFCOM concentrate on improving our Joint Warfighting capability as we transform to meet the challenges of the 21st century. In the future, they will be converting strategy and policy guidance into fielded capabilities at the operational level through the development of joint concepts and integrated architectures.

JFCOM is contributing to the efforts that develop and define the Joint Operations Concept, and the related operational concepts, that will link our defense strategy and our emerging Joint Vision with service operational concepts. It will help senior military and civilian leaders synchronize service modernization, guide experimentation and inform acquisition strategies that will guide materiel and non-material improvements for the joint force. In support of this effort, JFCOM conducts joint experimentation to validate the operational utility of joint concepts. The results will drive changes across all areas of doctrine, organizations, training, material, leadership and education, personnel and facilities.

To improve joint warfare, we must focus on improving the accuracy and timeliness of the Combatant Commanders information used to command and control the joint force. With shared information, commanders can integrate discrete capabilities; without it, they must segregate operations into time and space. For these reasons, we must emphasize the Joint Operations Concept to solve the interoperability challenges of our legacy command and control, communication, and computer systems and ensure future systems are "born joint."

JFCOM is working aggressively towards our goal of seamless C^4ISR interoperability by fiscal year 2008. To achieve that goal, JFCOM will set the operational requirements and prioritize the integrated architectures under development for future battle management command and control systems. In addition, JFCOM will exercise oversight and directive authority of three major interoperability efforts: the Deployable Joint Command and Control system, Single Integrated Air Picture, and Family of Interoperable Operational Pictures. The Services and Defense agencies, in coordination with JFCOM, will retain acquisition authority for these and all other battle management command and control programs and initiatives.

We are convinced that the Deployable Joint Command and Control system under development by the Navy is the materiel and technological solution to provide intelligence processing, mission planning, and control of combat operations for the stand-

ing joint force headquarters. The first Deployable Joint Command and Control suite is scheduled for delivery in fiscal year 2005. Together with the Air Force's Family of Interoperable Operational Pictures, the Army's Single Integrated Air Picture, and JFCOM's Joint Interoperability and Integration programs, this effort will allow the joint force to truly transform the way it plans, coordinates, and executes joint operations. We need continued congressional support for these critical battle management command and control programs.

Our experiences in Afghanistan illustrated how important timely and responsive command and control was to control sea, land, and air forces in areas with primitive or nonexistent communications infrastructures. To meet this challenge in the Arabian Gulf area of operations, CENTCOM deployed a prototype battle management command and control system to support its Internal Look exercise in Qatar and for potential future operations. DOD will leverage the lessons learned from this prototype to help guide the development of future battle management command and control systems.

We must also develop command and control systems that can rapidly deploy anywhere in the world, to support joint and coalition forces with "plug and play" ease and that are also scalable to respond to changing circumstances. Programs such as the Joint Tactical Radio System, Mobile User Objective System, and the Joint Command and Control capability (the follow-on to Global Command and Control System) are systems that were truly "born joint." We also must ensure that we have the necessary military satellite communications systems that can provide the high bandwidth required to support our forces in austere environments such as Afghanistan.

The role of command, control, communications, computers, intelligence, surveillance, and reconnaissance underscores the importance of managing and developing the radio frequency spectrum. Highly mobile, widely dispersed forces require significant radio frequency spectrum to operate effectively and efficiently. This military requirement is increasing at the same time that the private sector's demand for spectrum is growing. While it is important to provide additional spectrum to meet growing industry requirements, we must ensure the availability of spectrum to provide future military requirements.

In today's dynamic strategic environment, events in one area may quickly affect events in another. This reality requires a more responsive planning process to capitalize on the improved C^4 networks and where deliberate- and crisis-action planning complement each other. Improvements in war planning are required to close the time gap between deliberate- and crisis-action planning. These initiatives range from changing doctrine to developing new automated planning tools for Time-Phased Force Deployment Data (TPFDD) development. The Joint Staff, in collaboration with the Combatant Commanders' staff, is developing a single shared planning process for deliberate and crisis planning. This initiative will develop tools and processes to reduce the deliberate planning cycle, facilitate the transition to crisis planning, and exploit new technology to respond to evolving world affairs. The end results will be greatly improved flexibility for the President and the Secretary of Defense.

Improving Joint Warfighting requires more than technical solutions. My exercise program supports the Combatant Commanders' ability to sharpen our soldier, sailor, airmen, marines, and coastguardsmen's warfighting edge. It enables operational commanders to better train their battle staffs and forces in joint and combined operations while evaluating their war plans. It also allows DOD to enhance and evaluate interoperability among the Services. Exercises focusing on strategic, national, and theater-level joint tasks consistently challenge leaders throughout DOD, interagency and allies with timely and relevant scenarios—including terrorism, cyber attack, continuity of government, and operations. Routinely, these exercises provide access to critical bases of operation around the world as venues for practicing impending joint/combined operations. These exercises also allow the opportunity to enhance the capabilities of the military forces of allied nations and ensure their continued support in the war on terrorism. The U.S. military is advancing and transforming at a rate that greatly outpaces our allies. We must work hard to help them close that gap.

Since fiscal year 1996, the number of joint exercises decreased from 277 to 191. This resulted from the reduction of joint exercise transportation funds to $319 million. In order to balance operational and exercise requirements, DOD limits C–17 support to 34,000 equivalent flying hours and roll-on/roll-off ships to 1,100 steaming days. Any further decrease in funding will force major reductions or cancellations of high-priority joint/combined exercises and have a detrimental impact on our joint warfighting capability.

The Defense Department will establish a Joint National Training Capability to support joint operations by leveraging live, virtual, and constructive technologies. As

a first step, the Under Secretary of Defense for Personnel and Readiness and I will identify specific capabilities for the establishment of the Joint National Training Capability by 1 October 2004. The Joint National Training Capability will then exercise DOD's ability to execute key joint training tasks through several scheduled annual events.

We must improve our joint warfighting capabilities by learning from previous operations. The Combatant Commands, Services, and Joint Staff continue to capture and apply lessons learned from Operation Enduring Freedom. One of the key lessons learned was the positive impact Theater Security Cooperation had on our operations in Afghanistan. It helped create the foundation that allowed our air, naval, and ground forces to gain access to the region's airspace and basing. Another valuable lesson was the tremendous force multiplier of merging Special Operations Forces on the ground with space forces' communications and navigation capabilities to the air and naval forces' precision attack capabilities.

In addition to meeting other objectives, Joint Professional Military Education is one means to ensure that future warfighters capitalize on the lessons of the past to improve joint warfighting. Joint Professional Military Education develops U.S. military leaders capable of executing the war on terrorism, improving joint warfighting, and transforming the force. Currently there is an ongoing congressionally-mandated independent study of Joint Officer Management and Joint Professional Military Education. This study will provide valuable insights on ways to improve and expand joint officer development. We anticipate completion of this study in early 2003.

In concert with the independent study, the Joint Staff is also exploring ways to improve Joint Officer Management and Joint Professional Military Education. We identified requirements to provide joint distance-learning programs to our Reserve components and to active duty Non-Commissioned Officers to improve their expertise in joint operations. In a similar fashion, I directed the National Defense University to revise the CAPSTONE curriculum for newly selected Flag and General Officers. My goal is to ensure our new Flag and General Officers gain a better foundation of joint, interagency, and multi-national operations at the operational level.

I charged the Joint Staff with developing recommendations for several areas of Joint Officer Management and Joint Professional Military Education that I believe need to be revised. We need one set of effective and enforceable rules for how the Services assign and manage joint billets. We must also bring the tour length requirements and recognition of joint credit in line with current operations. The Combatant Commanders and I should be the driving force in the production of Joint Specialty Officers. Finally, my goal is to make the annual report to Congress a more meaningful set of metrics that more accurately reports each Service's support of the joint community. We look forward to working with you and your staffs this year, to incorporate these changes along with those of the independent study.

In addition, joint doctrine provides the foundation for joint education, training, and exercises. We are developing joint doctrine for Homeland Security, Civil Support, Joint Close Air Support, Joint Planning, Chemical, Biological, Radiological, Nuclear and High Yield Explosives Consequence Management; and Intelligence Support to Targeting. The new Joint Doctrine Electronic Information System ensures the warfighters have the most current joint doctrine. This system also provides joint doctrine to education and training audiences. Joint doctrine continues to improve the readiness of the joint warfighter to operate effectively and efficiently in a complex operational environment.

TRANSFORMATION OF THE U.S. ARMED FORCES

As the U.S. military meets the challenges of the 21st century, we must transform how we organize, support, and fight as joint warfighters. Transforming the joint force requires embracing intellectual, cultural, as well as technological, change. We are in the process of revising our Joint Vision. This new vision will provide a broad description of what our Armed Forces must and can become. From our Joint Vision and the Defense Strategy, we are crafting a Joint Operations Concept. It will link the tasks given our Armed Forces to the Joint Vision, joint operating concepts, and Joint Warfighter architectures. These joint concepts and architectures will provide further guidance to each Service.

In its broadest sense, the Joint Operations Concept will describe how the joint force will operate, while helping transform the U.S. Armed Forces to a capabilities-based force.

The Joint Operations Concept cannot shape the future joint force alone. It requires experimentation and assessment to determine the value of the Service and joint warfighting concepts in the context of future joint operations and the future

environment. From these efforts, we will identify the doctrine, organization, training, materiel, leadership, and education, personnel, and facilities changes needed to create the future joint force. In this manner, we can scrutinize current capabilities and proposed systems to highlight gaps and identify overlapping capabilities.

Using these architectures, the Joint Requirements Oversight Council will implement methodologies to assess both legacy and proposed systems in the aggregate. As a result, the Joint Requirements Oversight Council will define and validate desired joint capabilities and derive mission area requirements. The Joint Requirements Oversight Council shall consider the full range of doctrine, organizations, training, materiel, leadership and education, personnel, and facilities solutions to advance joint warfighting. In this manner, the Joint Requirements Oversight Council will further reorient our force planning to a capabilities-based framework. The Joint Operations Concept will allow the Joint Requirements Oversight Council to adopt a synchronized, collaborative, and integrated systems engineering approach to sizing and shaping our forces.

In support of our transformation efforts, JFCOM spearheaded the Nation's first major joint field experiment with Millennium Challenge 02. Millennium Challenge 02 demonstrated a variety of new concepts and systems that enabled critical command and control, collaborative information sharing, and time-sensitive targeting capabilities. These systems are essential to the fielding of the Standing Joint Force Headquarters. While Millennium Challenge 02 focused on materiel capabilities, it yielded insights critical for non-materiel changes in doctrine, organizations, training, materiel, leadership and education, personnel, and facilities.

One example was the Joint Fires Initiative, which offered an interim automated capability to manage time-sensitive target engagement. The Joint Fires Initiative enabled the Joint Task Force, Component Commanders and their staffs to use available information technology, web-based collaborative tools to accelerate the joint force's ability to identify, attack, and assess priority targets. It blended intelligence, surveillance, and reconnaissance resources, combat units and Commanders' decision processes to permit real-time execution.

A second initiative in Millennium Challenge 02 was Joint Enroute Mission Planning and Rehearsal System—Near Term. This system enables Theater and Joint Task Force Commanders to remain connected with their forward and rear headquarters when enroute to or from contingency locations. It permits a wide scale of communications and collaborative tools to prevent a "leadership blackout" during a commander's travel.

The Joint Fires Initiative and Joint Enroute Mission Planning and Rehearsal System—Near Term are part of fielding a broader Collaborative Information Environment. Today's Collaborative Information Environment is powered by high-speed connectivity and real-time collaborative tools to share information in an unprecedented manner. This environment will permit commanders to receive more accurate information faster. As such, it will be critical part for U.S. forces to operate faster than our adversaries.

To meet this challenge, the joint force must have access to superior information. This requires long-term investment to meet the demands of responsive, targeted, intrusive, and persistent collection. Our current operational environment and the nature of these dynamic threats demand that our joint force have the real-time ability to monitor, track, characterize, and report on moving objects and events. We must capitalize on emerging technology such as small, expendable satellites, and long-dwell UAVs. These promising platforms will enable the joint force to gain persistent surveillance. The information gained from these platforms must not flow into stovepipes, but must be part of a "system of systems" that blends with human and technical data from strategic, theater, tactical, and commercial programs.

With this improved and more complete data, the Intelligence Community must develop tools to assist in information management that can accommodate "analytic discovery" and data visualization techniques. Our military intelligence community requires a highly skilled work force trained to mine, manipulate, integrate, and display relevant information. To effectively employ these collection opportunities, new techniques and tools must be developed.

While we are expending considerable effort to make sure we procure systems that are interoperable across the Services, we must continue placing emphasis on systems that allow interoperability with our allies. A way to do this is to allow allies to participate in many of our procurement projects. This will have the dual advantage of helping to lower project cost to the American taxpayer and increasing interoperability with those allied forces that will accompany us into the breach. The Joint Strike Fighter reflects one success story of allied and U.S. combined procurement. The Joint Strike Fighter set the standard for how we should approach new procurements, welcoming key allied participation in the development and production

of future systems. Such an acquisition strategy will increase interoperability, help allied transformation, and reduce direct U.S. development costs.

Transforming military forces to meet a dynamic 21st century security environment is not a unique American task. At the Prague summit, NATO leaders agreed to establish an allied command for transformation in Norfolk, Virginia. The proposed NATO Command will work with JFCOM. This close and cooperative relationship will allow the U.S. and our NATO allies to keep abreast of advances in contemporary warfare.

Our efforts to improve our allies' warfighting capabilities reach far beyond NATO. The Combatant Commanders and I share the Secretary of Defense's vision of a long-term plan to balance burden sharing, leverage U.S. technological superiority and use a proactive Theater Security Cooperation strategy to transform allied forces into lethal, offensive-minded, combined-arms forces. This initiative is as much about doctrine, warfighting mindset and organizational structure as it is about platforms and weapon systems. Theater Security Cooperation will allow the U.S. to modify force structure and posture to optimize the mobility, lethality, and interoperability of our forward forces.

CONCLUSION

With Congress' support, this past year we have made progress in the war on terrorism, specifically, and overall capabilities. Al Qaeda and their global network were not created in a single day, but over a decade. At the same time, the Nation's Armed Forces must be prepared for other threats to our interests. Confronting them will require determined and disciplined use of all instruments of American power. Congressional support ensures that our military forces are the most competent and capable military tools possible.

The men and women of our Armed Forces have performed in a magnificent manner this past year. They stand ready for the challenges ahead. They deserve our best efforts in training, equipping, and caring for them and their families. Thank you for the opportunity to provide my report on our Nation's finest—our soldiers, sailors, airmen, marines, and coastguardsmen.

Chairman WARNER. General, let me initiate the first questions here for a 6-minute round. We have excellent attendance by our committee.

So I start with you, General, and I ask for just a short answer to this question, which is important to this record. Is it your professional judgment that the Armed Forces which are under your supervision are prepared to meet any contingency for the use of force that may be required in Iraq and/or Korea, and hopefully will not be required in either Iraq and/or Korea, and to continue the high level of activity against worldwide terrorism?

General MYERS. I will give you a real short answer. Absolutely.

Chairman WARNER. Now Mr. Secretary, it was reported in the press this morning that Secretary Powell appeared before committees of Congress yesterday and said that an Army general would be the person that would be placed in charge should we have to use force in the Iraqi situation and in the aftermath of what we all anticipate would be a successful military operation.

The distinguished chairman of the Senate Foreign Relations Committee, Senator Lugar, is reported to say we are way behind here, between the administration and Congress, in understanding what would take place in the aftermath of such use of force.

Now in my judgment, our President has in a very courageous and proper manner pursued the diplomatic route to resolve this problem in Iraq. He is continuing to do that with the leadership of the Prime Minister of Great Britain and other world leaders. I think progress is being made. We will know more after tomorrow's report by Hans Blix. But it is clear that we have forward deployed our forces first and foremost to support the diplomatic efforts. Diplomacy will not succeed unless it is clearly perceived by the enemy

that frankly we mean business if diplomacy fails. So I commend the President and others.

But I think given that we are about to go out for a recess here in a week or so amidst a rapid progression of events, that should force be used to bring a conclusion to that conflict, what is the likely scenario involving your Department? Will other militaries of the world be involved and is it just a role of security or will the U.S. military be placed in a position of a high commissioner and/or governor of some type of the territory of Iraq in order to keep the integrity of that territory as it exists now?

Secretary RUMSFELD. Mr. Chairman, let me take a few moments to try to respond to that. The Government has spent a good deal of time over many months thinking these various elements through. The answer to your question depends to some extent on what takes place. Your question suggested no decision has been made to use force but in the event force were used, it could happen in several ways.

For example, Saddam Hussein could leave today, and the question would be how does the United States then act to see that the principal goals of the United States are achieved, namely that the weapons of mass destruction are found and destroyed, that they're disarmed. That whatever government takes over is a government that does not develop weapons of mass destruction, the government does not help terrorists, does not threaten its neighbors, and puts the country on a path towards appropriate representation and protection for the various religious and minority elements in the country. Those are the principal goals.

So that is one way it could happen, he could leave. Another way is that he could leave and turn it over to somebody else who is equally unacceptable. Another way would be that someone could help him leave and take over control. A third is that force would have to be used. Depending on what happened and the circumstance in the country, we would determine how long and in what role the military would have to play.

Clearly, the goal would be to go in and see that what resulted was better than what was there beforehand. That means that the United States simply has to be willing to stay there as long as is necessary to see that that is done, but not one day longer. We have no interest in other people's land or territory. We have no interest in other people's oil, as some articles seem to suggest. So exactly how long it would be and what it would look like would vary.

The principles that would pertain insofar as the Department of Defense is concerned: First, we would have military capability in there sufficient to find and destroy the weapons of mass destruction and to find and deal with any terrorist networks that exist in the country, which we know is the case. It would be my goal to internationalize it as rapidly as possible, to have other countries participate. Very likely the participation would be in the humanitarian, civil, and reconstruction areas earliest, as opposed to finding the weapons of mass destruction, for example. There just are not a lot of countries that really would be involved in that that I can think of, although we would welcome help from a number that have already offered assistance.

The next task would be to put the country on a transition so that the outsiders are not running it. That means you would have to find a way to see that the Iraqi opposition from the outside, the Iraqis from the inside who had not been a party to the repressiveness of this regime, and the weapons of mass destruction programs of this regime would in a different way have an Iraqi solution, just as Afghanistan had an Afghanistan solution. So the goal would be to get them on a path so that increasingly more and more was handled and managed by the Iraqi people themselves and that less and less was managed by the international community.

Chairman WARNER. I think your response reflects that we have given this a good deal of consideration and that we have clear plans in place and are ready to proceed.

Quickly to a second question, and that involves the very disturbing news with regard to the North Atlantic Treaty Organization (NATO) thus far being unable to reconcile differences among the member nations as to NATO's ability to provide such security as the government of Turkey feels is essential, given the fluidity of this situation. I commend you for stepping up to say if NATO doesn't, the U.S. will. That's proper.

But does not this action thus far violate the time tested fundamental belief of NATO of over a half century, that an attack on one is an attack on all, and could not a persistence of this type of policy by member nations begin to erode NATO so it becomes a less effective organization?

Lastly, the United States is the major financial contributor to NATO, the major troop contributor, and the major technical contributor—particularly the Airborne Warning and Control System (AWACS)—and now the American taxpayers will be required to foot an additional bill of the costs associated with our proper decision to place such forces in the position of Turkey to protect their interests. So we're getting hit twice as a consequence of the inability of NATO to reconcile this issue. Do you have some views?

Secretary RUMSFELD. Well, I do and I expressed them in a recent meeting and I might add that a member of the committee, Senator McCain, also expressed some opinions over there that were very much on the mark, in my view.

The situation is that the vote was 16 to 3 in favor of initiating planning to send defensive capabilities to Turkey so that they would be protected. You can't do anything at the last minute in life. You have to plan it, you have to get things moving, things moved by ship. The position of the three countries that it was premature to plan, it seems to me, was unfortunate.

We did say that the United States and the other 16 countries would step forward and see that Turkey, in fact, had AWACS, chem-bio detection, and Patriot batteries. It would not be simply the United States that would provide that. We decided immediately that Turkey must have those capabilities and we must begin the planning. My feeling is that it's unfortunate that the three countries have delayed us this long.

There's no question, as you suggest, that to the extent we do not interest ourselves in every 1 of the 19 members, but goodness, Turkey is a moderate Muslim country, the only country in NATO that

borders Iraq. To not behave in a way that recognized that and allowed for that planning, I think was most unfortunate.

Chairman WARNER. Thank you, Mr. Secretary.

Senator Levin.

Secretary RUMSFELD. Senator, General Myers has some news that I didn't have time to read and I will let him comment on it.

General MYERS. As we're speaking, I think NATO is also looking at ways to deploy the help that Turkey needs, at least part of AWACS and the missile defense assets in a way that would not require political approval. They think they may have that legal authority without going through the political process. They are looking at that. There may be an announcement here at about 11:00 on those issues.

Chairman WARNER. Thank you very much.

Senator Levin.

Senator LEVIN. Thank you. Mr. Secretary, the administration's Nuclear Posture Review called for improving our nuclear weapons capability, and the administration requested funds in fiscal year 2003 and fiscal year 2004 to study a so-called nuclear penetrator.

If the United States sends signals that we're considering new uses for nuclear weapons, isn't it more likely that other nations will also want to explore greater use or new uses for nuclear weapons, and that other nations won't listen to our pleas to stay nonnuclear or to stay in the nonproliferation treaty, but rather would say you're even relying on them more, you're looking at new ways to use nuclear weapons, so why shouldn't we?

Secretary RUMSFELD. Senator, I think that the first thing we have to say is that the task of the Department of Defense, indeed the first responsibility of a President of the United States, is to provide for the security of the country. The Department of Defense assists the President in developing contingency plans and studying a variety of things on a continuing basis. To not do so, it seems to me, is to misserve the country.

The world is experiencing an enormous amount of underground tunneling and activities, activities underground that are for production, for manufacturing, they are for development, for storage. The problem of not having visibility into them and when one has visibility, not having the ability to penetrate and reach them creates a very serious obstacle to U.S. national security.

To the extent that we say to ourselves, that this is going to be the ultimate solution, we're unwilling to even study the idea of penetrating capability and therefore we make it advantageous for people to engage in that type of tunneling, I think that it would create an incentive rather than a disincentive.

Senator LEVIN. Mr. Secretary, Title 10 requires the Department of Defense's Director of Operational Test and Evaluation, which is our independent test authority at the Pentagon, to certify that appropriate operational testing has been completed prior to putting weapon systems into production. That law exists to prevent the production and fielding of a weapon system that doesn't work right.

Your budget request seeks a waiver of the operational testing requirements to enable you to implement your plans to deploy a national missile defense system in 2004. How do you justify bypassing operational testing requirements?

Secretary RUMSFELD. I guess I would justify it very easily in this sense. If you think about it, it is a perfectly rational thing to have a testing requirement. So if you take the Predator unmanned aerial vehicle, for example, and it is moving along the track and it has not been fully tested and it's not ready for deployment, and you start using it because you're in a conflict, you find that it's advantageous to use it. In the process of using it you find things that could be changed and improved on it. Now it has never been fully completed through the process with the stamp of approval of the testing organization.

The same thing happened during Operation Desert Storm as I recall, or Kosovo, with JSTAR.

General MYERS. Joint Stars.

Secretary RUMSFELD. Joint Stars, the exact same thing.

So on the one hand, it makes sense to have the requirement. On the other hand, it makes sense to waive it when reasonable people look at the situation and say that it's time to do that.

Now, why do it with respect to missile defense? Well, I happen to think that thinking we cannot deploy something until you have everything perfect, every I dotted and every T crossed, is probably not a good idea. In the case of missile defense, I think we need to get something out there in the ground, at sea, and in a way that we can test it, we can look at it, we can develop it, we can evolve it, and learn from the experimentation with it. It happens that it also provides a minimal missile defense capability.

Senator LEVIN. If it works.

Secretary RUMSFELD. If it works, of course. The same thing with Predator. I mean, Predator—things do not tend to work or not work; they tend to work either as well as you hoped or somewhere less well than you hoped. In the case of Predator, it didn't work or not work, it did an awful lot that was very valuable in Afghanistan and is still doing it today, but it didn't do a lot of things that it might have done, because people didn't ever have that experience in using it, and the same thing would be true with missile defense.

Senator LEVIN. Thank you. General Myers, we have a copy of a draft legislative proposal that has been circulating inside the Department of Defense. If this legislation were passed, the Joint Staff would report to the Secretary instead of to the Chairman, and the Secretary would have to approve all appointments to the Joint Staff. The draft amendment would strike the statutory requirement that the Joint Staff be "independently organized and operated." Then we also have the memorandum signed by David Chu requesting a legislative proposal be drafted that would reduce the term served by the service chiefs from 4 years to 2-year renewable terms.

It seems to me that these proposals taken together or separately would lessen the ability of the uniformed military to provide independent military advice to the civilian leadership in the executive branch and Congress. That's my view, but what is your view of these proposals?

General MYERS. Senator Levin, I'm at a little bit of a disadvantage because I haven't seen the drafts yet, and I don't know if we will, because the Secretary and I have talked in general about how better to arrange ourselves, if there are ways to make ourselves

more efficient and effective. As far as I know, we have just had some preliminary discussions, we've talked about maybe having somebody look at this from the outside that might be able to provide some help in that area.

Senator LEVIN. Would you be supporting these proposals?

General MYERS. Well, I would have to look at them. I have not seen the draft proposals. I think the way we're arranged today is fundamentally sound, so I'd have to look and see how they want to change that.

Senator LEVIN. My time is up. Thank you, Mr. Chairman.

Chairman WARNER. Mr. Secretary, do you have a comment on that important question?

Secretary RUMSFELD. Well, I haven't seen the draft either, and therefore I don't know really how I could comment because I am not familiar with it. General Myers and I have talked about the way the Joint Staff and the Office of the Secretary of Defense (OSD) function, and in some cases it's my personal view that it looks like it duplicates things and requires things to go through double chops. At least the thought has been expressed to me by a number of people who have looked from the outside as to whether there might be a way to merge some of those pieces in a way that did not in any way inhibit the Chairman's responsibility under the law to be able to provide military advice to the President, the National Security Council, and the Secretary of Defense. We talked about getting together some folks to look at this and examine it.

Chairman WARNER. So you promise to keep Congress and this committee fully informed, should this thing begin to take on a life of its own?

Secretary RUMSFELD. Indeed. I take it somebody was up talking about it already.

Chairman WARNER. Senator Inhofe.

Senator INHOFE. Thank you, Mr. Chairman. I have to say this about the comments by the distinguished Senator from Michigan. Every time I hear the argument that we don't want to enhance our nuclear capability because they will do the same thing, if you carry that to its logical conclusion, if we just disarmed, then everyone else would disarm too and we wouldn't have these problems.

I'm very proud of you, Mr. Secretary, for using the words that you used. I wrote them down. You said we are in the most dangerous security environment the world has ever known, and I agree with that. Just yesterday, when Director Tenet called to our attention the capabilities of what the North Koreans have right now, a missile that could reach the United States of America, and we know that they are trading systems and technology with countries like Iraq, Iran, Syria, Libya, and Pakistan. It's a very frightening thing.

I carry with me a veto message by former President Clinton of our 1996 Defense Authorization Bill wherein he states his justification for vetoing it: "First, the bill requires deployment by 2003 of a costly missile defense system able to defend all 50 States from a long-range missile threat that our intelligence committee does not think exists." I wish that veto had not taken place.

I would single out this one thing in here as the most significant thing, and I say that not so much as a Senator, but my wife and

I have 19 kids and grandkids, and I am deeply, gravely concerned. Do you feel that this budget give you all the money necessary for you to get something deployed against a missile attack, at least a partial missile attack, or do you need something more in there? Can you share with us what you have?

Secretary RUMSFELD. Senator, we spent a good deal of time looking at the issues of missile defense of various ranges: short, medium, and ICBM range. We ended up creating a budget that we believe at this state of our knowledge is appropriate. It will do what I said. It will give us something in the ground that will serve as a test bed so we can evolve it. It will give us the capability to look at the sea based option, which I believe is important. It will also give us as a result of that test bed some minimal capability. To have gone further at this stage, we felt would have been invalid. So I'm comfortable with this level of funding in this particular instance.

Senator INHOFE. Thank you very much, Mr. Secretary. General Myers, I chair the Environment and Public Works Committee and there's an issue that will come before it and this committee and that is encroachment on our ranges. I guess going a little overboard on my concern on our ability to train our kids, I was deeply concerned when you took away the live-fire training capability at Vieques. At the UDARI range in Kuwait, we lost five lives, four of whom were Americans, and the accident report said that they did not have that live-fire training. I look at what the environmental encroachment is doing to our different ranges.

Just a few minutes ago, I had General Kelley from the Marines talking about Camp Lejeune and Pendleton. Right now, only 30 percent of Camp Pendleton can be used for training. At Camp Lejeune, the red cockaded woodpecker is using up so much of the range.

You are such good stewards of the environment that you're your own worst enemy because the better job you do, the more endangered species there are out there. I am very much concerned about it and I would like to have you share with us very briefly your concern. I do have one quote that you made which is rather lengthy, so I know what your concern is. Would you do that briefly?

General MYERS. Senator Inhofe, I will try to do it as briefly as I can. I don't think you can be too concerned about this subject. I think the best quality of life you can provide for our Armed Forces is proper training so if they are used in combat or peacekeeping or whatever, they are prepared for that task. Some of the uses of the environmental laws that we see today, where groups will now bring the Department of Defense into court, were never intended, I don't think, by the folks who drafted the environmental protection statutes. They can bring us into court and can stop training, whether it's aircraft or land or on the sea for that matter, and it can be very detrimental to our effectiveness and in the end will put our men and women in harm's way simply because they haven't been properly trained.

Senator INHOFE. I appreciate that. I know before this committee a couple years ago, they testified that we were spending more money in Camp Lejeune to protect the species than we were on am-

munition. It has to be addressed and I'm hoping that we will be doing that.

Lastly, Secretary Rumsfeld, when you go back, and I'm going from memory now, but as I recall in terms of percentage of GDP, during the entire 20th century, during each year at peace, defense spending represented 5.7 percent of GDP. We went down to an all time low during the Clinton administration of about 2.8 percent. Even with this enhanced budget it's only 3.3 percent. When you look at the proliferation that's out there and the fact that maybe we should relook at our strategy, maybe we should be able to defend America on three regional fronts. But as you have looked at this and look into the future in terms of a percentage of GDP, what do you see in the future, number one? Number two, in spite of all the problems you have right now, will you be considering that?

Secretary RUMSFELD. Senator, it's something that someone in our position has to consider. It is hard to fully appreciate the magnitude of the change that's taken place in terms of our security and the difficulty. If one just takes the intelligence task, we had the luxury, it sounds funny to use the word luxury, of watching the Soviet Union, a closed society, and not having to worry about very many other things. We could learn about it, know about it, and over time we found it quite predictable.

Today we're dealing with not one target for intelligence, but dozens. We're looking at ungoverned areas all across the globe where the governments simply do not control their own real estate. We're dealing with countries that are every bit as closed or more closed than the Soviet Union was. We're getting information on North Korea, for example, that is just enormously difficult.

So instead of at the end of the Cold War dropping the intel budgets down and changing the projection by some $35 billion over that period, I'm told, from what the pre-Cold War budgets had been directed or projected to be for intelligence, it's something like $35 billion less, while the task has gotten much greater. So the question is, how do we adjust our thinking in that regard and how do we see that we gain the kinds of knowledge and information and have the kinds of not just technological but human intelligence capabilities? That's true in other areas as well. I just take that one example since it's such an important one.

Senator INHOFE. I thank both of you for your courageous answers. My time has expired. Thank you, Mr. Chairman.

Chairman WARNER. Thank you very much, Senator Inhofe. We are of course proceeding under the early bird rule, and the first early bird to arrive this morning was our distinguished Senator from Massachusetts.

Senator KENNEDY. Thank you very much, Mr. Chairman, and I join as I am sure all of us do with the words of Senator Levin in commending you, Mr. Secretary and General Myers, for all that you're doing for the service men and women of this country. It is enormously impressive.

Let me move to the issue I mentioned prior to the start of these hearings, Mr. Secretary, and that is the Nuclear Posture Review. Many of us are concerned about the position of the administration on nuclear weapons. Over the last half century we have made great strides on arms control. We signed the Nuclear Nonproliferation

Treaty (NPT), the ABM Treaty, the START–I Treaty, and the START–II Treaty, creating an arms control regime that has successfully prevented the use of nuclear weapons for more than half a century.

Despite this progress, the Bush administration seems to be taking us in a new direction. The administration has presented a Nuclear Posture Review that suggests grave changes in our policy on the use of nuclear weapons and the dangers that this administration may well be igniting a new arms race.

Under the Nuclear Posture Review as reported in The Los Angeles Times January 25, Strategic Command is developing plans for the use of nuclear weapons against nations like Iraq that do not have nuclear weapons. They mention other countries as well, such as Syria, Libya, and Iran.

As you well understand, a nuclear weapon is not just another weapon in an arsenal. Until now we have always kept them in a class of their own for good reasons, because of their enormous destructive power and our profound commitment to do all we can to see that they are never used again. So wouldn't the action in the Nuclear Posture Review violate a long-held commitment under the nuclear nonproliferation treaty to not attacking non-nuclear states that are not aligned with nuclear states?

Secretary RUMSFELD. Senator, I have no idea what you're reading from, but I——

Senator KENNEDY. Well, the Nuclear Posture Review——

Secretary RUMSFELD. No, no, the news article.

Senator KENNEDY. That's what I'm referring to, a very well publicized article titled: "U.S. Weighs Tactical Nuclear Strike in Iraq." There have been exchanges on it.

Secretary RUMSFELD. Exchanges between who and whom? I never heard of this article.

Senator KENNEDY. All right. But you're familiar with the Nuclear Posture Review?

Secretary RUMSFELD. You bet. We spent 18 months developing it.

Senator KENNEDY. Did they also consider in the administration's classified Nuclear Posture Review that said nuclear weapons should be considered against targets able to withstand conventional attack, in retaliation for an attack, in retaliation for attacks with nuclear, chemical, or biological weapons, or in the event of surprising military developments? It identified seven countries—China, Russia, Iraq, North Korea, Iran, Libya, and Syria as possible targets. That's in it. If you're not familiar with it, I will move on.

Secretary RUMSFELD. Let me just make a quick comment.

Senator KENNEDY. Okay.

Secretary RUMSFELD. Our policy historically has been generally that we will not foreclose the possible use of nuclear weapons if attacked. If you think back to Europe, we always said we would not agree to a "no first use policy" because we would have to defend against overwhelming conventional capability.

The second thing we've had as a general policy of our country is not to rule out various options.

The third thing we have as a record is that those weapons, as you said, have not been fired in anger since 1945.

Does the Department have an obligation and have they in successive administrations of both political parties had procedures whereby we would conceivably use nuclear weapons? Yes.

Senator KENNEDY. Well, I thought also there were assurances about non-first use against countries that didn't have nuclear weapons, that that was included as well.

Secretary RUMSFELD. I'm familiar with that.

Senator KENNEDY. All right. There have been such countries included, as I understand it, in the Nuclear Posture Review. That's a change, and that's what I'm asking about.

But let me just go on. Is the United States seriously considering using any nuclear weapons against Iraq?

Secretary RUMSFELD. The United States has historically had strategic offensive nuclear weapons and theater nuclear weapons. As a part of contingency planning, the United States has in my adult lifetime always had contingency plans to do a variety of things. The question you asked was not that. The question you asked was are we seriously considering something. The only person in the United States who has the power to use weapons of that nature is the President of the United States. It seems to me that if one looks at our record, we went through the Korean War, we went through the Vietnam War, we've gone through the war on terror and we have not used nuclear weapons. That ought to say something about the threshold with respect to nuclear weapons.

Senator KENNEDY. On February 4, Richard Pearl, Chairman of the Defense Policy Board, stated that he believed the military can win in Iraq with precision bombs, that is his position about it.

Secretary RUMSFELD. That's my position.

Senator KENNEDY. In the House of Commons, Prime Minister Blair said, "the notion that we have plans to use nuclear weapons in Iraq is completely false." Would you agree with that statement?

Secretary RUMSFELD. Senator, I agree with the statement made that we have every confidence that in the event force is to be used in Iraq, that we could do what needs to be done using conventional capabilities.

Senator KENNEDY. Well, just to finish, Mr. Chairman, I'm concerned that the use of nuclear weapons in Iraq in the absence of an imminent overwhelming threat to our national security would bring a near total breakdown in our relations with the rest of the world, particularly in regards to the Arab world.

Secretary RUMSFELD. Well, Senator, I'd like to just make sure the record is very clear here. You have raised a very sensitive subject and the implication of it from the article is that there is a likelihood that nuclear weapons would be used. I think that implication is an unfortunate one.

Senator KENNEDY. Okay. Well, last year the Republicans attempted to repeal the restrictions on nuclear weapons with a yield of five kilotons or less, the so-called "mini-nukes." Now what is your position on that? Are you for continuing the Spratt amendment or are you for repealing it? That is the one that has had the prohibition about research and development below the five kilotons. That's a fairly good indication as well as to where the administration is thinking.

Secretary RUMSFELD. I don't think it is.

Senator KENNEDY. It may not for you but it certainly is for many of us, if you're thinking of repealing what has been now for a number of years the restrictions for no testing below certain kinds of kilotons because of the increased possible use of them and the dangers of the proliferation of small weapons like this, getting into the hands of terrorists. Those are serious policy issues and questions. We were going to continue the Spratt moratorium, that would certainly send a signal. If you are for changing or altering that, that would certainly be an indicator of a changed position of the administration.

Chairman WARNER. Senator, your question is important but we are way over time. I wonder if the Secretary could answer that for the record.

Secretary RUMSFELD. I would be happy to. I think it's terribly important to distinguish between the process of research and development and analysis, as opposed to the process of development and deployment, let alone use of a weapon. Those distinctions, it seems to me, get blurred in a discussion like this, and I think they need to be in very separate boxes.

[The information referred to follows:]

The law that the administration has asked Congress to repeal is the so-called Precision Low-Yield Weapon Development (PLYWD) law (§ 3136, PL 103–160). The PLYWD law prohibits research that could lead to the development or production of a new low-yield warhead with a yield at or below 5 Kt. This law is a serious impediment to intellectual and technical research to explore and understand the capability of low-yield options in conjunction with advanced technology to place existing or emerging WMD facilities at risk with relatively low-levels of collateral damage. Conducting research on potential new weapons utilizing new technologies will enhance deterrence, not lower the nuclear threshold.

Repealing the law does not reflect a change in policy; low-yield nuclear weapons are not new. The U.S. has had low-yield nuclear weapons for decades. Repeal of the so-called PLYWD law falls far short of committing the United States to developing, producing, and deploying new, low-yield warheads. Such warhead concepts could not proceed to full-scale development, much less production and deployment, unless Congress authorizes and appropriates the substantial funds required to do this.

Conducting research and development to hold at risk facilities associated with weapons of mass destruction will not undermine our efforts to limit proliferation internationally. Nations seek and develop nuclear capabilities to address their regional security concerns, not because the U.S. has low-yield nuclear weapons. Quite the opposite is true. An effective U.S. deterrent would help deter potential aggressors from trying to acquire WMD or threatening its use against U.S. territory, troops, allies, and friends.

Today, as well as in the future, the U.S. cannot predict with confidence what nations or non-state actors may pose a threat to our vital interests or those of our allies. The U.S. must possess forces sufficient to dissuade and deter any potential adversary armed with WMD and to assure our allies and friends of our commitment to their security. Research and development aimed at finding ways to place threatening facilities such as those associated with WMD at risk are fully consistent with maintaining an effective deterrent. Just because a nuclear weapon has a relatively low yield, compared to the so-called "hard target killers" from the Cold War, does not make them any easier to use. During the height of the Cold War, the U.S. possessed many types of low yield weapons. Deterrence worked; none were used. As with all nuclear weapons, the President is the sole authority for employment. A president would consider use of any nuclear weapon only in the most grave situations.

Chairman WARNER. The Senator from Maine.

Senator COLLINS. Thank you, Mr. Chairman. Mr. Secretary, at the same time that we are deploying troops around the globe for the war against terrorism, as well as to prepare for a potential war in Iraq, we have a number of existing deployments that continue

to require extensive resources to maintain. We have, for example, some 37,000 troops in Korea and more than 70,000 troops in Germany. With the increasing demands on our military, I believe that it is time for us to reevaluate the need for those existing deployments.

For instance, our large presence in Germany is largely a legacy of the Cold War, and arguably, that threat no longer exists. Is the Department reexamining the need for large deployments in Germany and Korea?

Secretary RUMSFELD. Senator, the President asked me, when he asked me to serve as Secretary of Defense, to review our defense posture and our circumstance around the world. We have been doing that. There is no question but that the arrangements of our current force deployments have an advantage in that they are forward deployed and they serve to reassure the world and the nations that we have the ability to deter and defend against various types of threats.

It is quite clear to me that you're correct, that the deployments we have, for example, in Korea, which is one of the places you mentioned, can be reviewed in cooperation with the South Korean government and, as a matter of fact, the new President of South Korea has suggested that we look at our relationship and see that we rebalance it in some way, and I have accepted that invitation. We had previously been looking at it on a private basis, a unilateral basis, and General LaPorte has been working on it now for many months and we will very soon, as soon as the new government is in place, begin somewhat more formal discussions about how we can ensure the defense of the peninsula and still have—for one thing, I would like to see a number of our forces moved away from the Seoul area and from the area near the de-militarized zone (DMZ), and be more oriented towards an air hub and a sea hub, with the ability to reinforce so that there is still a strong deterrent. Possibly with our improved capabilities of moving people, some of those forces come back home. We'll see.

Now General Jones in Europe is doing the same thing. There is no question but that right now, for example, we're trying to move some forces from Germany down to Italy, and Austria is causing a difficulty with respect to moving the forces through Austria by rail, which means we may have to go up to Rotterdam or possibly by train through two or three or four countries instead of directly.

Therefore, it's clear that it's better for us probably not to have such a heavy concentration. I think it would, however, be a mistake to suggest that if we do end up reducing some of those forces or moving them to other countries, that it had anything to do with our relationships with those countries, because it simply doesn't. It is something that we have been involved in over many months now and are in the process of working with other countries on.

Senator COLLINS. I would now like to turn to the shipbuilding budget, which will probably come as no surprise to you. I'm pleased that the fiscal year 2004 budget submission appears to turn the corner on shipbuilding and it is a marked improvement over last year. However, even with budgeting for 7 ships, the Navy's fleet is still going to drop, as you indicated, below 300 ships in the coming years. The Chief of Naval Operations (CNO) has repeatedly testi-

fied, and I talked to him just recently, that our Nation requires a fleet of 375 ships in order to fulfill all of the Navy's mission requirements.

Now I appreciate your testimony that you don't want to lock the Department into a shipbuilding program until you're certain what kinds of ships you need and what the mix should be. But how are you going to remedy the deficit we have in coming years if we don't start making more of that investment now? Again, I applaud you for putting 7 ships in, that's a big improvement over 5 of last year, but it still is not at the rate we need, which is more like 10 or 11 ships a year.

Secretary RUMSFELD. Senator, this is a tough area and we are pleased that the numbers are coming up but we're disappointed that the total number of ships are going to drop below 300 for a period, and then be back up by the end of the forward year of the defense plan.

The CNO is an enormously able man who is doing a superb job for the country, Adm. Vernon Clark. I know he has testified to the number 375 for a number of years, if I'm not mistaken. We have a group of people that are looking at doing a shipbuilding study and analyzing not just numbers but, more importantly, types of ships and capabilities of ships: lethality, what they bring. That study, I don't know when it will be through. You're involved in it, Dov.

Dr. ZAKHEIM. Senator, we're looking specifically at issues like amphibious shipping, forcible entry, and also underwater requirements. Senator, we have research and development money for a new Littoral combat ship. That's why we have some confidence that as the numbers begin to really go up in the outyears, like 2009, that those are real numbers because those ships are going to be much less expensive.

Senator COLLINS. Thank you, Mr. Secretary.

Chairman WARNER. Senator Reed.

Senator REED. Thank you, Mr. Chairman. First, Mr. Secretary, let me commend you for your representation of our country. You had not only remarkable eloquence but remarkable restraint, and both were noted.

Secretary RUMSFELD. I'm not noted for restraint.

Senator REED. I agree. [Laughter.]

As we all understand, the American public is terribly concerned about developments around the globe and even within the United States with the heightened alerts, with conflicts potentially in the Persian Gulf, and with the war on terror. They're also a bit confused. As I go back to my home State of Rhode Island, one of the confusing elements is the apparent disparate treatment between the threat posed by Iraq and the threat posed by North Korea. North Korea has a military force capable of a surprise attack, clearly Iraq does not. North Korea has ejected U.N. inspectors, Iraq grudgingly, reluctantly, and noncooperatively has allowed them into their country. Our response to the North Korean situation has been to refer it to the United Nations, our response to the Iraq situation has been to, we hope, encourage the United Nations enforcement but prepare to go it alone.

I wonder, Mr. Secretary, since you are responsible for military planning, are we discounting a more serious threat posed by North Korea, the threat that they will within weeks have nuclear weapons or marketable plutonium because of our concentration or preoccupation with Iraq?

Second, what can we do right now with respect to North Korea to try to moderate their behavior?

Secretary RUMSFELD. Senator, let me try and again demonstrate restraint, since this is a matter that the President and Secretary Powell are wrestling with extensively. My impression of these two very different situations, each dangerous to be sure, is that the U.S. policy over a period of time has been to some extent the same. Both have gone to the United Nations.

The difference is in the case of Iraq, it's been 12 years. They have tried political and diplomatic efforts through the United Nations, now up to some 17 resolutions. They have tried economic sanctions and they haven't worked. Iraq over a period of time has used chemical weapons against its own people and its neighbors. They have fired Scud missiles at three or four of their neighbors. They invaded Kuwait. They threatened to destabilize some of their neighbors. They struck with, as a terrorist state, and are developing weapons of mass destruction. It seems to me that that one is at the end of the cycle.

Conversely, one had hoped that North Korea, as a result of the Agreed Framework, was at a stop with respect to nuclear weapons. The public assessment is that they have one or two weapons. The public assessment is that if they restart the reprocessing plant, they can have six to eight additional, or they could have material for six to eight additional weapons but not have weaponized them immediately. I see North Korea as a threat as a proliferator more than I see them as a nuclear threat on the peninsula.

Now, I could be wrong, but they sell almost anything. They are the world's greatest proliferator of missile technology, and what concerns me is that risk. I think that the decision by the President and the Secretary of State to have that problem seen as a world problem is correct, that it is a problem for the world, that proliferation represents a terribly dangerous thing. There are a lot of countries sitting around waiting to buy that type of material.

We can't unilaterally as a country win things politically or economically; it takes enormous cooperation from other nations. It's pretty clear that the proliferation regimes that exist in the world worked pretty well before, but they're not working very well right now. For example, we stopped that ship going towards Yemen, and we had no legal authority to stop it, so we had to let it go. It was more missile technology coming from North Korea, and the same thing is going to be true. Unless the world wakes up and says this is a dangerous thing, and creates a set of regimes that will in fact get cooperation to stop those weapons, we are going to be facing a very serious situation in the next 5 years.

Senator REED. Thank you, Mr. Secretary. Let me raise another issue which is related to North Korea, because reports today indicate that they have the missile capability to reach the west coast of the United States, which underscores the importance of developing and deploying an effective missile defense system.

You have indicated in your budget that you are proposing a limited deployment, and I think in response to Senator Levin you said that this will be done without operational testing. The first question I have is, can I assume that you will conduct operational testing even though it will come after the deployment?

Secretary RUMSFELD. Of course. I don't even know that it's correct to say it will be deployed without operational testing. I think this is an unusual situation and I would characterize what we have proposed as simultaneously a test bed as well as a minimal deployment. It is both things, and the words are hot button words because the testing is required before deployment, but not before a test bed. Yet, the reality is the test bed offers a deployable minimal capability.

Senator REED. I agree with you, Mr. Secretary, in terms of these are hot button words and that's why I think it's very important to pick words carefully, because the last missile test was a failure; they've had great successes and some failures, it's still a very primitive system.

Secretary RUMSFELD. Exactly.

Senator REED. We need a booster rocket that has not yet been integrated into the system. My suggestion was that using the word deployment gives it a little more credibility, the system that we use today, than in fact it has.

Secretary RUMSFELD. I guess beauty is in the eye of the beholder, but let me tell you the dilemma I went through. On the one hand if you call it a deployment, it has a greater deterrent effect. If you call it a deployment when in fact it is very minimal and would, it is what it is, then it's overstating it. If you call it a test bed, someone who's against deployment is going to call it a deployment, because the reality is it has a minimal capability. Then they're going to say you deployed it before you tested it. So no matter which way we went, someone wasn't going to like it.

My attitude is, we have an obligation. It is a fact, George Tenet declassified it yesterday as I understand it, that the North Koreans very likely do have a two-stage with a kick motor capability, which could reach the United States. We also assessed that they have a limited number of nuclear weapons. Now, that's not a happy combination. Having that test bed, that minimally deployed system, is not a bad thing, I'd say.

Senator REED. Thank you for your responses and your restraint.

Chairman WARNER. Senator Ensign.

Senator ENSIGN. Thank you, Mr. Chairman. I'd like to make just a couple of brief comments and then get into a little questioning.

I have read through your statement and there are a couple of things I was very pleased about. I think you're right on target with the idea—and this doesn't just apply to missile defense, I think it applies to many other weapon systems—the idea of not waiting until you have a perfect system before deploying it. I think that our experience is showing us that weapons systems are taking far too long to develop.

I don't know if it was in your testimony from today or some of the previous things that I've read from you, but I remember reading that the length of time today required to bring new weapons systems on line is two or three times longer than it was 20 years

ago. Yet, technology is advancing the speed with which new things should be happening and instead, we're going the other way. So taking a whole new look at the way the Department of Defense does things is absolutely critical at this point.

I've said for a long time that the Department of Defense probably has enough money right now if you were able to do things the right way. In other words, if you didn't have all the rules and regulations that you had to do things, and you could actually get the money to the things that the money needs to be gotten to, and didn't have all the bureaucratic procedures and have to spend all of that money doing all the bureaucratic things that you have to do, you probably—I don't know that that number is accurate, but you would certainly have a lot more money to put to weapons systems and quality of life issues, and taking care of the military the way that it needs to be taken care of.

So I'm very excited about the new direction, and as the new chairman for the Readiness and Management Support Subcommittee, I'm committing to work with you on some of these issues. We have a role. We have to hold you accountable. But at the same time, we have to recognize that you have a lot more expertise in these areas and we have to able to take your direction and empower you to do the things that are going to be necessary to transform, or at least begin a major transformation of, our Department of Defense.

Now to get to my first question, do you have any idea how much money you could save in some of the reparations? I understand we're probably not going to cut the defense budget, but how much money from the proposals that you put together, have you put a number together, or maybe Dr. Zakheim, you can tell us if there's a total amount estimate of savings if all of the reforms that you wanted were put through.

Secretary RUMSFELD. No, Senator. First of all, thank you for your encouragement on the kinds of changes that we really believe we need, and we look forward to working with you on that. We have not put together a number. I have kind of off the top of my head said that in organizations that I have run, I have generally been able to save something around 5 percent if you get at it and work at it hard. Now that doesn't sound like a big percentage, but when you've got a $380 billion budget, it's a pile of money. I'm just guessing.

But there is no question that we're required to do so many things we ought not have to do, and people are wasting so much time doing things they don't have to do, that we could do an awful lot better job for the country.

Senator ENSIGN. On the idea of using our resources better, one concern I have is that, we are taking the bulk of the responsibility in an area that I consider to be primarily a European problem. We have been a great friend to the Europeans in the Balkans. We handled the situation for them and continue to handle a great deal of that over there, and it seems to have been taken off the table when we were trying to solve this situation with NATO and Turkey, the idea of taking our peacekeepers away from there and allowing the Europeans to handle the peacekeeping operation. Can you make some comments on your feelings about that?

Secretary RUMSFELD. Sure. I think what happened in the Balkans, Europe seemed to need our involvement, to put it graciously. Fair enough. We decided to get involved, which in my view was the right decision. We underestimated—as I recall, in Bosnia they said we'd be out by Christmas. Not so. I think it's important to be realistic about things, and it takes time.

What you have to do if you put troops in is build up the civil side, the rule of law, the courts, the police, the border patrol, they have to have that capability. The U.N. and the European Union (EU) and the people charged with that responsibility did not move as aggressively, in my view, as they might have. Joe Ralston, our European commander during that period, has done a great job in beginning to pull our troops—not our troops but all NATO troops that are in there—down in a measured way. There is a better effort now going on getting that civil side working.

Now, it's still a dangerous part of the world and we have to be aware of that. There are countries that have offered to help back fill some of that, Senator, for us because of our involvement in the global war on terrorism, and we have looked at that.

Senator ENSIGN. Mr. Chairman, my time has expired. Just one quick comment not requiring a response and that is, I appreciate you not taking any of our options off the table. I consider us the good guys, and I would rather have the good guys having all of their weapon systems and all of their capabilities far superior to the bad guys in the world. So, I applaud your efforts and say keep going.

Chairman WARNER. Thank you.

Senator Bayh.

Senator BAYH. Thank you, Mr. Chairman. Mr. Secretary, I want to thank you and your colleagues for being with us today. We know you're busy, and we appreciate your enabling us to do our constitutional responsibilities here.

General and Doctor, I hope you won't take personal offense if my inquiries are directed to the Secretary, and Mr. Secretary, I hope you won't take personal offense at that either.

Secretary RUMSFELD. I will have to hear the question before I will answer that. [Laughter.]

Senator BAYH. Fair enough. Mr. Secretary, the Cold War ended 14 years ago and the shifting of the geopolitical, for lack of a better term, tectonic plates that began at that time has begun to reveal some fissures that only now are coming to full relief. That said, I want to follow up on a question that the chairman asked you about NATO. Simply put, what do you view as the future mission or role of NATO? Let me follow up on that just with one other comment that the chairman also alluded to. We now have an alliance that has a couple major countries in it that are unwilling to support us in our effort to enforce United Nations resolutions. Those same countries are apparently unwilling to take steps to defend another member of the alliance. What good is an alliance that is willing to take neither proactive steps nor defensive measures?

Secretary RUMSFELD. I have a feeling you're trying to put me in a position of defending Germany and France.

Senator BAYH. It's hard to defend the indefensible.

Secretary RUMSFELD. But first let me say, if one looked down from Mars on the globe, we'd find there are several handfuls of countries that believe in free political institutions and free economic institutions, and most of them are in NATO, a large fraction of them in the whole word are in NATO. Like minded countries working together in a world that's dangerous and untidy is a good thing. I may as a former ambassador to NATO, having lived it, have a bit of a bias on the subject, but I believe that NATO, since the Cold War ended and NATO has migrated into understanding the importance of doing things outside of the NATO treaty area, has the potential to bring a multinational approach to some problems in the world that can be enormously beneficial.

To get something accomplished it is frequently vastly better to work with other countries, because things don't fit solely as political, economic, or military. They tend to be a blend. Again, we need the political and the economic support as well as the military support. So I'm disappointed at the situation in NATO where they have refused to assist Turkey with planning.

On the other hand, I have been around so long that I have seen many times in our alliance where we've had bumps. We had the natural gas pipeline during the Reagan administration, we had the Mansfield amendment back then, and Senator Warner will remember back in the 1970s. It's never been perfect, it's always been a little bumpy. This one is interesting because the division is not between the United States and Europe, the division is within Europe.

Senator BAYH. Correct. So your response is that although occasionally aggravating and not perfect, it's better than the alternative, particularly when we look at the breadth of challenges that we face. I think Director Tenet mentioned that yesterday, that the cooperation continues to be excellent in the intelligence community. But I thought it was important to raise this subject. It's something that I think we have to give some thought to going forward.

General MYERS. Senator, can I just—let me——

Senator BAYH. If you can be brief, General, because the clock is running on me.

General MYERS. I will try to do that, Senator. You asked about the future role and the Secretary covered a part of that. The other part is that at the time we are discussing this issue in NATO right now about Article IV and support for Turkey, we're also redoing the command and control structure that has to be done to get out of the Cold War model that we've had. The NATO response force is an idea that we took into NATO that's being implemented.

I will keep it short, but there are probably 9 or 10 good things that NATO has done really well lately, to include their support in Afghanistan.

Senator BAYH. It's important to emphasize this organization is going to retain its vitality and its mission going forward, I think is a thought that's in order here.

If I could just move on, Mr. Secretary, I want to second what Senator Collins said with regard to the role of our forces in South Korea. I'm delighted to hear that you're giving some thought to possibly repositioning them. It seems to me right now that they are insufficient to either fight or deter successfully. They are not uni-

formly popular in the country, and so some rethinking of the presence there is in order.

Just one other question and a couple of quick comments, because 6 minutes runs by very quickly. Mr. Secretary, we live in a world unfortunately of multiple threats these days, as you know better than any of the rest of us. We hope that it doesn't come to fighting in any of them but we have to be prepared to take force, if necessary, in more than one place. Specifically I'd like to ask you, and I know it's not our policy and we've said repeatedly we don't intend to use force, but I want to ask you about North Korea in the context of Iraq. If it came to that, and I know we don't intend to, and I don't want to try and bait you over that line here, but if we decided that we had no choice except to take military action against the reprocessing facility and their launch sites, could we do that while fully engaged in Iraq? Do we have the capability?

Secretary RUMSFELD. Senator, if I answer that, the newspapers throughout Asia are going to say that the Secretary of Defense rattled the sabers, and the President is on a diplomatic track.

Senator BAYH. Let me step back from the question, but I think you can understand where we sit. It's important to look at the potentialities that are out there and be reassured.

Secretary RUMSFELD. Absolutely.

Senator BAYH. So let me step back from that specific question and just say, do we have the ability to act both in Iraq and in other potential hot spots around the world in a way that would defend America's security?

Secretary RUMSFELD. Senator, we have a defense strategy and a force sizing construct that says we can win decisively and conquer a country in one theater, and near simultaneously swiftly defeat an adversary in another theater, and at the same time successfully pursue a number of lesser contingencies, for example, Bosnia or Kosovo, or what we're doing in Afghanistan.

Senator BAYH. I would trust in your budget that you're embedding additional capabilities to address multiple situations simultaneously.

Secretary RUMSFELD. Well, as I indicated, our budget does not include money for the global war on terror. Nor does it include money for the force flows in support of Iraq. We're going to have to have a supplemental for that, which I'm told is traditional.

Senator BAYH. Mr. Chairman, my time has expired. If I could just make two comments without requesting any response. I know this is a recurring source of aggravation for you, Mr. Chairman. I couldn't help but notice in The Washington Post today a front page story saying special operations units are already in Iraq. It cites sources or experts familiar with Pentagon planning, and then two military officials with direct knowledge of their activities, etcetera, etcetera. This subject of leaks, there was a great deal of hue and cry about a leak from Congress a while back with regard to a single somewhat innocuous intercept in Afghanistan.

I know you're doing your best on this, but if this kind of leaking takes place, it's hard to—I would request that you do all you can because we are going to try and do all we can from our end.

Finally, regarding the Revolutionary Armed Forces of Colombia (FARC), I mentioned yesterday to Director Tenet that there is a po-

tential there, with our growing military involvement, for that not only to bite our personnel there but possibly here domestically as well, if you think about this incident where they had a bombing of a fairly large, a hardened target in Bogota a few days ago. There is a great deal of travel back and forth between Colombia and the U.S., and it's not beyond the realm of possibility that they may decide to take that conflict at some future date to U.S. soil. Thank you, Mr. Chairman.

Chairman WARNER. Thank you, Senator.

Secretary RUMSFELD. Mr. Chairman, might I just comment on that?

Chairman WARNER. The Senator's time has almost been double now.

I want to encourage General Myers to respond to the important questions about NATO. I do believe you had testified about nine points. Not now, but in the record.

[The information referred to follows:]

1. Every nation that has led ISAF in Afghanistan has been a NATO Ally. Beginning with ISAF III in January, NATO, as an Alliance, began supporting the German/Dutch command of the ISAF mission. NATO is exploring providing increased support, including possibly taking command.
2. Prague Capabilities Commitment. Heads of state and government made political commitments to focused, achievable improvements in military capabilities.
3. NATO Response Force. This will be a driver for force modernization and will give NATO a credible 21st century military force.
4. Command Structure Review. Allies made a commitment to joint operations and a considerably leaner structure that includes an Allied Command Transformation.
5. NATO Enlargement. We are on the road to successful accession of seven nations into NATO.
6. NATO-Russia Council. We have seen the development of a significant relationship between Russia and NATO.
7. Balkans Transition to EU command/control. NATO is developing a good working relationship with the EU Security apparatus, resulting in actual military capabilities and EU assumption of the NATO mission in Macedonia.
8. Political guidance for defense against terrorism. The Alliance is committed to acting against terrorists, as well as those who harbor them.
9. European sealift and airlift clearinghouse organizations. These are nascent means of improving the deployability of European forces.

Chairman WARNER. Do you wish to say something, Mr. Secretary?

Secretary RUMSFELD. I do. I think the Senator is exactly correct about leaks. I think they are just dangerous. They put people's lives at risk, and I think people have a duty to manage their mouths and not put people's lives at risk. I would also add that I think it's the obligation of people who find people leaking to tell responsible authorities because folks that do it and put people's lives at risk ought to be in jail.

General MYERS. Mr. Chairman, I'd just like to make sure the record is clear. I thought I heard Senator Bayh say that we were not able to fight successfully in Korea. You said we were not positioned to.

Senator BAYH. No, no, I didn't, and I don't want to take any more time. With 37,000 troops, it seemed to me that they were unlikely to be essential to fighting a successful war there.

Chairman WARNER. We must turn now to Senator Allard.

Senator ALLARD. Thank you, Mr. Chairman. I want to pursue your comment about the capability of Korea to reach the mainland

with a missile strike. We had testimony from Director Tenet yesterday, and he did make the statement that they have missile capability to reach the west coast and that's the first time I'd ever heard that statement. So, you made a statement here and the nature of your statement that you made, it wasn't clear to me whether you were just stating a fact that he had made that statement or whether you have evidence that makes you believe that Korea can reach the west coast with a missile.

Secretary RUMSFELD. Senator, I chaired the Ballistic Missile Commission back in 1998, I guess it was, or 1997, and there is no question but that North Korea launched a type of Dong II, a two-stage ballistic missile with a kick motor on it, and the kick motor did not work. It apparently did not put it into orbit or give it the sufficient distance that they needed. But that was years ago, and they are clearly capable in missile technology, they sell it all the over the world, and there isn't a doubt in my mind but that by now they have a capability to reach portions of the United States.

Senator ALLARD. In my view, and it must be your view too, that makes our missile defense system even more critical. As one American who wants to make sure we protect the borders of this country, I am very appreciative of you and this administration for pushing forward on missile defense. If we had taken the advice of those who opposed missile defense, I think we'd have a vulnerability today that would have to be of concern to this country, and I think it still exists, but at least we have somewhat of a leg up when the administration is talking about deploying a missile defense system, and I just want to thank you and the administration for that forward thinking type of effort on the part of this country. It's that type of effort that's going to make sure we remain a free country.

I also would like to compliment you on being willing to look at many new programs in the Pentagon. I've always viewed you as somebody who is willing to shake the tree a little bit and I appreciate that in you. It doesn't hurt programs that have been around a long time to go back and reevaluate them and make them rejustify why they have to be there. If we want our taxpayer dollars to do the most for the American people towards defending this country, I think that has to happen. Even in an institution that you and I strongly support, which is the Department of Defense, we need to look hard to make sure that we are doing everything we can to do the best in trying to protect the country with as few tax dollars as we possibly can, and I commend you for that.

Also, one other thing I wanted to bring up was the Air Force's evolve expendable launch vehicle (EELV). The market on launch vehicles and the industrial base associated with that has really changed dramatically in the last year or 2 and I have been one that always pushed that we needed to have competition, because I think it brings the best out and gives you some choice and some duplication that perhaps maybe we need. There are some areas in defense where duplication makes sense and some where it doesn't. This is one of those areas where I always thought it made a lot of sense. Can you talk a little bit about what you think might be our capability in maintaining that competitive system in the expendable launch vehicle area?

Secretary RUMSFELD. The guy sitting next to me is an expert on the subject, the former commander of the Space Command, and I think I will let Dick Myers comment on it.

Senator ALLARD. General Myers.

General MYERS. Senator Allard, I think I can go a little way towards addressing your question. I don't know if I can go all the way. Obviously the business case has changed dramatically since the idea that we would have competition for our new expendable launch vehicles, and I think both of the industrial competitors in that program have developed very good launch systems. They're developing capability on both the east and west coasts for those systems.

My understanding is given this change in the business case that was present just 3 or 4 years ago in contrast with today, the Air Force along with the folks up in the Secretary's office in acquisition, technology, and logistics are looking at the way ahead for this program. To my knowledge, they have not made a judgment in terms of how to handle the competitive piece of this, but I think that's under a serious discussion right now.

Senator ALLARD. I understand that in the President's budget there have been some dollars put in there to try to sustain this competitive environment, and I would urge you to try to do that, because I think it's vital that we have some launch capability out there and if one system goes bad, it's always nice to have a little bit of redundancy.

General MYERS. Well, the EELV, make no mistake about it, is absolutely essential to our space capability because they are the launch vehicles for the future. I think we have a handful of Titan IVs left and a few other kind of rockets, but we're going to go to the EELV, that's a given. The question is, do we have enough launches in the cue to sustain the two competitors. I have to tell you, I'm not totally up to speed on that issue other than I understand it was being looked at in a very serious way by the Air Force and by Pete Aldridge.

Dr. ZAKHEIM. Just to be specific, Senator, we have in the 2004 budget funds for four launches, and that's in addition to the launch that's taking place this month.

Senator ALLARD. I see, thank you.

Back to missile defense, you've expressed a willingness in the past to sort of bring in other countries in the missile defense area, get them involved to a certain degree. Do you have plans to bring in our closest allies in this effort, for example, Britain or maybe Canada? Is there any hope at all that we could get Russia involved in a partnership that wouldn't put us at increased risk on our technology?

Secretary RUMSFELD. Senator, you're correct, we are engaged in discussions with a number of countries, including the United Kingdom (U.K.). In fact, the U.K. made an announcement within the last week or 2 about their upgrade and their interest in cooperating with us in improving their security situation as a result. But there are any number of countries that come in and we do discuss these things. With respect to Russia, the answer is yes, there is a possibility we could cooperate. There are a number of things we could do with Russia on missile defense. Indeed, my recollection is there

was a working group that was going back in the 1990s but for some reason it was discontinued in the late 1990s, and I have had discussions with Minister of Defense Ivanov on this subject and I suspect we will continue.

Senator ALLARD. Thank you. My time has expired.

Chairman WARNER. Thank you very much.

Senator Akaka.

Before, Senator, you address the witnesses, could I put into the record following the important questions from our colleague from Colorado, the communication that I, Senator Levin, Senator Roberts, and Senator Rockefeller received. I asked the Director of Central Intelligence to elaborate on the comments he made about the Korean missile yesterday.

The essence of it is, the testimony is consistent with previously unclassified judgments, the capability of the Taepo Dong-2 to reach the United States is not a new judgment, and he elaborates on that. Without objection, it will go into today's record.

[The information referred to follows:]

Central Intelligence Agency

Washington, D.C. 20505

12 February 2003

The Honorable John Warner
Chairman
Committee on Armed Services
United States Senate
Washington, D.C. 20510

Dear Mr. Chairman:

With respect to Director Tenet's open testimony this morning, the Committee asked for a further elaboration of the comment on the North Korean missile and nuclear capability. Enclosed you will find information on this subject.

Please feel free to contact me should you have any questions concerning this matter.

Sincerely,

Stanley M. Moskowitz
Director of Congressional Affairs

Enclosures

cc: The Honorable Carl Levin, SASC
The Honorable Pat Roberts, SSCI
The Honorable John D. Rockefeller IV, SSCI

North Korea's Taepo Dong-2

The Director of Central Intelligence, in his unclassified opening statement before the Senate Armed Services Committee on 12 February 2003, noted that "the United States faces a near-term ICBM threat from North Korea." Later, the DCI responded affirmatively to a question from Senator Bayh about whether North Korea could reach the US western coast with one of its nuclear weapons. During the exchange, the Director of the Defense Intelligence Agency added that the missile in question, the Taepo Dong-2, had not yet been flight tested.

This testimony is consistent with previously unclassified judgments. The capability of the Taepo Dong-2 to reach the United States is not a new judgment. The December 2001 *Unclassified Summary of a National Intelligence Estimate on Foreign Missile Developments and the Ballistic Missile Threat Through 2015* stated that North Korea's multiple-stage Taepo-Dong-2 is capable of reaching parts of the United States with a nuclear weapon-sized payload of several-hundred kilograms. The Summary also indicated that:

- The Intelligence Community judged in the mid-1990s that North Korea had produced one, possibly two, nuclear weapons.
- North Korea continued to develop the Taepo Dong-2 despite its moratorium on flight testing.
- A two-stage version could deliver a several-hundred kilogram payload up to 10,000 km—sufficient to strike Alaska, Hawaii, and parts of the continental United States.
- A three-stage version could deliver a several-hundred kilogram payload up to 15,000 km—sufficient to strike all of North America.

In a September 1999 unclassified paper on the same subject, we noted that North Korea surprised the world with how successful its first and only flight of its multi-stage Taepo Dong-1 had been, even though it ultimately failed to place its satellite into orbit. That paper also noted our assessment that the Taepo Dong-2 was ready to be flight tested in 1999.

Foreign Missile Developments and the Ballistic Missile Threat to the United States Through 2015

September 1999

Preface

Congress has requested that the Intelligence Community produce annual reports on ballistic missile developments. We produced the first report in March 1998 and an update memorandum in October 1998 on the August North Korean launch of its Taepo Dong-1 space launch vehicle (SLV). Our 1999 report is a classified National Intelligence Estimate, which we have summarized in unclassified form in this paper.

This year we examined future capabilities for several countries that have or have had ballistic missiles or SLV programs or intentions to pursue such programs. Using intelligence information and expertise from inside and outside the Intelligence Community, we examined scenarios by which a country *could* acquire an ICBM by 2015, including by purchase, and assessed the *likelihood* of various scenarios. (Some analysts believe that the prominence given to missiles countries "could" develop gives more credence than is warranted to developments that may prove implausible.) We did not attempt to address all of the potential political, economic, and social changes that could occur. Rather, we analyzed the level of success and the pace countries have experienced in their development efforts, international technology transfers, political motives, military incentives, and economic resources. From that basis, we projected *possible* and *likely* missile developments by 2015 independent of significant political and economic changes. Subsequent annual reports will be able to account for such changes.

Our projections for future ICBM developments are based on limited information and engineering judgment. Adding to our uncertainty is that many countries surround their ballistic missile programs with secrecy, and some employ deception. Although some key milestones are difficult to hide, we may miss others. For example, we may not know all aspects of a missile system's configuration until flight testing; we did not know until the launch last August that North Korea had acquired a third stage for its Taepo Dong 1.

We took into account recommendations made in July 1998 by the Commission to Assess the Ballistic Missile Threat to the United States and incorporated the results of several academic and contractor efforts, including politico-economic experts to help examine future environments that might foster ICBM sales and missile contractors to help postulate potential ICBM configurations that rogue states could pursue.

This paper has been prepared under the auspices of the National Intelligence Officer for Strategic and Nuclear Programs, Bob Walpole; comments or questions should be directed to CIA's Office of Public Affairs on 703-482-7677

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Contents

Key Points

We project that during the next 15 years the United States most likely will face ICBM threats from Russia, China, and North Korea, probably from Iran, and possibly from Iraq. The Russian threat, although significantly reduced, will continue to be the most robust and lethal, considerably more so than that posed by China, and orders of magnitude more than that potentially posed by other nations, whose missiles are likely to be fewer in number—probably a few to tens, constrained to smaller payloads, and less reliable and accurate than their Russian and Chinese counterparts.

We judge that North Korea, Iran, and Iraq would view their ICBMs more as strategic weapons of deterrence and coercive diplomacy than as weapons of war. We assess that:

- North Korea *could convert* its Taepo Dong-1 space launch vehicle (SLV) into an ICBM that could deliver a light payload (sufficient for a biological or chemical weapon) to the United States, albeit with inaccuracies that would make hitting large urban targets improbable. North Korea is *more likely to weaponize* the larger Taepo Dong-2 as an ICBM that could deliver a several-hundred kilogram payload (sufficient for early generation nuclear weapons) to the United States. Most analysts believe it could be tested at any time, probably initially as an SLV, unless it is delayed for political reasons.
- Iran *could test* an ICBM that could deliver a several-hundred kilogram payload to many parts of the United States in the last half of the next decade using Russian technology and assistance. Most analysts believe it could test an ICBM capable of delivering a lighter payload to the United States in the next few years following the North Korean pattern.
  - Analysts differ on the likely timing of Iran's first test of an ICBM that could threaten the United States--assessments range from *likely before 2010 and very likely before 2015* (although an SLV with ICBM capability probably will be tested in the next few years) to *less than an even chance* of an ICBM test by 2015.
- Iraq *could test* a North Korean-type ICBM that could deliver a several-hundred kilogram payload to the United States in the last half of the next decade depending on the level of foreign assistance. Although less likely, most analysts believe it *could test* an ICBM that could deliver a lighter payload to the United States in a few years based on its failed SLV or the Taepo Dong-1, if it began development now.
  - Analysts differ on the likely timing of Iraq's first test of an ICBM that could threaten the United States—assessments range from *likely before 2015, possibly before 2010* (foreign assistance would affect capability and timing) to *unlikely before 2015*.
- By 2015, Russia will maintain as many nuclear weapons on ballistic missiles as its economy will allow but well short of START I or II limitations.

- By 2015, China is likely to have tens of missiles capable of targeting the United States, including a few tens of more survivable, land- and sea-based mobile missiles with smaller nuclear warheads—in part influenced by US technology gained through espionage. China tested its first mobile ICBM in August 1999.

Sales of ICBMs or SLVs, which have inherent ICBM capabilities and could be converted relatively quickly with little or no warning, could increase the number of countries able to threaten the United States. North Korea continues to demonstrate a willingness to sell its missiles. Although we judge that Russia or China are unlikely to sell an ICBM or SLV in the next fifteen years, the consequences of even one sale would be extremely serious.

Several other means to deliver weapons of mass destruction to the United States have probably been devised, some more reliable than ICBMs that have not completed rigorous testing programs. For example, biological or chemical weapons could be prepared in the United States and used in large population centers, or short-range missiles could be deployed on surface ships. However, these means do not provide a nation the same prestige and degree of deterrence or coercive diplomacy associated with ICBMs.

The proliferation of medium-range ballistic missiles (MRBMs)—driven primarily by North Korean No Dong sales—has created an immediate, serious, and growing threat to US forces, interests, and allies, and has significantly altered the strategic balances in the Middle East and Asia. We judge that countries developing missiles view their regional concerns as one of the primary factors in tailoring their programs. They see their short- and medium-range missiles not only as deterrents but also as force-multiplying weapons of war, primarily with conventional weapons, but with options for delivering biological, chemical, and eventually nuclear weapons. South Asia provides one of the most telling examples of regional ballistic missile and nuclear proliferation:

- Pakistan has Chinese-supplied M-11 short-range ballistic missiles (SRBMs) and Ghauri MRBMs from North Korea.
- India has Prithvi I SRBMs and recently began testing the Agni II MRBM.
- We assess these missiles may have nuclear roles.

Foreign assistance continues to have demonstrable effects on missile advances around the world, particularly from Russia and North Korea. Moreover, some countries that have traditionally been recipients of foreign missile technology are now sharing more amongst themselves and are pursuing cooperative missile ventures.

We assess that countries developing missiles also will respond to US theater and national missile defenses by deploying larger forces, penetration aids, and countermeasures. Russia and China each have developed numerous countermeasures and probably will sell some related technologies.

Discussion

Introduction
The worldwide ballistic missile proliferation problem has continued to evolve during the past year. The proliferation of technology and components continues. The capabilities of the missiles in the countries seeking to acquire them are growing, a fact underscored by North Korea's launch of the Taepo Dong-1 in August 1998. The number of missiles in these countries is also increasing. Medium- and short-range ballistic missile systems, particularly if armed with weapons of mass destruction (WMD) warheads, already pose a significant threat to US interests, military forces, and allies overseas. We have seen increased trade and cooperation among countries that have been recipients of missile technologies from others. Finally, some countries continue to work toward longer-range systems, including ICBMs.

We expect the threat to the United States and its interests to increase over the next 15 years. However, projecting political and economic developments that could alter the nature of the missile threat many years into the future is virtually impossible. The threat facing the United States in the year 2015 will depend on our changing relations with foreign countries, the political situation within those countries, economic factors, and numerous other factors that we cannot predict with confidence.

- For example, 15 years ago the United States and the Soviet Union were superpower adversaries in the midst of the Cold War, with military forces facing off in central Europe and competing for global power. Today, by contrast, the differences that separated the two countries during that period have been replaced by differences expected between modern nation states.
- Iraq is another example; 15 years ago it shared common interests with the United States. Since Iraq's invasion of Kuwait in 1990, Washington and Baghdad have been in numerous military and diplomatic conflicts.
- Finally, we do not know whether some of the countries of concern will exist in 15 years in their current state or as suppliers of missiles and technology.

Recognizing these uncertainties, we have projected foreign ballistic missile capabilities into the future largely based on technical capabilities and with a general premise that relations with the United States will not change significantly enough to alter the intentions of those states pursuing ballistic missile capabilities. Future annual reports will be able to take account of any contemporary information that alters our projections.

The Evolving Missile Threat in the Current Proliferation Environment
The new missile threats confronting the United States are far different from the Cold War threat during the last three decades. During that period, the ballistic missile threat to the United States involved relatively accurate, survivable, and reliable missiles deployed in large numbers. Soviet--and to a much lesser extent Chinese--strategic forces threatened, as they still do, the potential for catastrophic, nation-killing damage. By contrast, the new missile threats involve states with considerably fewer missiles with less accuracy, yield, survivability, reliability, and range-payload capability than the hostile strategic forces we have faced for 30 years. Even so, the new systems are threatening, but in different ways.

First, although the majority of systems being developed and produced today are short- or medium-range ballistic missiles, North Korea's three-stage Taepo Dong-1 SLV demonstrated Pyongyang's potential to cross the 5,500-km ICBM threshold if it develops a survivable weapon for the system. Other potentially hostile nations could cross that threshold during the next 15 years. While it remains extremely unlikely that any potential adversary could inflict damage to the United States or its forces comparable to the damage that Russian or Chinese forces could inflict, emerging systems potentially can kill tens of thousands, or even millions of Americans, depending on the type of warhead, the accuracy, and the intended target.

Classification of Ballistic Missiles by Range	
Short-range ballistic missile (SRBM)	Under 1,000 km
Medium-range ballistic missile (MRBM)	1,000 to 3,000 km
Intermediate-range ballistic missile (IRBM)	3,000 to 5,500 km
Intercontinental-range ballistic missile (ICBM)	Over 5,500 km

Second, many of the countries that are developing longer-range missiles probably assess that the *threat* of their use would complicate American decision-making during crises. Over the last decade, the world has observed that missiles less capable than the ICBMs the United States and others have deployed can affect another nation's decision-making process. Though US potential adversaries recognize American military superiority, they are likely to assess that their growing missile capabilities would enable them to increase the cost of a US victory and potentially deter Washington from pursuing certain objectives. Moreover, some countries, including some without hostile intent towards the United States, probably view missiles as a means of providing an independent deterrent and war-fighting capabilities.

Third, the probability that a WMD-armed missile will be used against US forces or interests is higher today than during most of the Cold War. Ballistic missiles, for example, were used against US forces during the Gulf war. More nations now have longer-range missiles and WMD warheads. Missiles have been used in several conflicts over the past two decades, although not with WMD warheads. Nevertheless, some of the regimes controlling these missiles have exhibited a willingness to use WMD.

Thus, acquiring long-range ballistic missiles armed with WMD will enable weaker countries to do three things that they otherwise might not be able to do: deter, constrain, and harm the United States. To achieve these objectives, these WMD-armed weapons need not be deployed in large numbers; with even a few such weapons, these countries would judge that they had the capability to threaten at least politically significant damage to the United States or its allies. They need not be highly accurate; the ability to target a large urban area is sufficient. They need not be highly reliable, because their strategic value is derived primarily from the threat (implicit or explicit) of their use, not the near certain outcome of such use. Some of these systems may be intended for their political impact as potential terror weapons, while others may be built to perform more specific military missions, facing the United States with a broad

spectrum of motivations, development timelines, and resulting hostile capabilities. In many ways, such weapons are not envisioned at the outset as operational weapons of war, but primarily as strategic weapons of deterrence and coercive diplomacy.

The progress of countries in Asia and the Middle East toward acquiring longer-range ballistic missiles has been dramatically demonstrated over the past 18 months:

- Most notably, North Korea's three-stage Taepo Dong-1 SLV has inherent, albeit limited, capabilities to deliver small payloads to ICBM ranges. Although the Taepo Dong-1 satellite attempt in August 1998 failed, North Korea demonstrated several of the key technologies required for an ICBM, including staging. As a space launch vehicle, however, it did not demonstrate a payload capable of surviving atmospheric reentry at ICBM ranges. We judge that North Korea would be unlikely to pursue weaponizing a three-stage Taepo Dong-1 as an ICBM, preferring instead to pursue the much more capable Taepo Dong-2, which we expect will be flight tested this year, unless it is delayed for political reasons.
- Pakistan flight-tested its 1,300 km range Ghauri missile, which it produced with North Korean assistance. (Pakistan also flight-tested the Shaheen I SRBM.)
- Iran flight-tested its 1,300 km range Shahab-3—a version of North Korea's No Dong, which Iran has produced with Russian assistance.
- India flight-tested its Agni II MRBM, which we estimate will have a range of about 2,000 km.
- China conduced the first flight test of its DF-31 mobile ICBM in August 1999; it will have a range of about 8,000 km.

Many of these countries probably have considered ballistic missile defense countermeasures. Historically, the development and deployment of missile defense systems have been accompanied by the development of countermeasures and penetration aids by potential adversaries, either in reaction to the threat or in anticipation of it. The Russians and Chinese have had countermeasure programs for decades and are probably willing to transfer some related technology to others. We expect that during the next 15 years, countries other than Russia and China will develop countermeasures to Theater and National Missile Defenses.

Threat Availability Before "Deployment"
Emerging long-range missile powers do not appear to rely on robust test programs to ensure a missile's accuracy and reliability—as the United States and the Soviet Union did during the Cold War. Similarly, deploying a large number of long-range missiles to dedicated, long-term sites—as the United States and the Soviet Union did—is not necessarily the path emerging long-range missile powers will choose. In many cases, a nation may decide that the ability to threaten with one or two long-range missiles is sufficient for its doctrinal or propaganda needs. China, for example, has only about 20 ICBMs; its doctrine requires only that it be able to hold a significant portion of an aggressor's population at risk.

With shorter flight test programs—perhaps only one test—and potentially simple deployment schemes, the time between the initial flight test and the availability of a missile for military use is likely to be shortened. Once a missile has performed

successfully through its critical flight functions, it would be available for the country to use as a threat or in a military role. Thus, we project the year for a first flight test rather than the projected date for a missile's "deployment" as the initial indication of an emerging threat. Moreover, using the date of the first projected flight test as the initial indicator of the threat recognizes that emerging long-range missile powers may not choose to deploy a large number of missiles and that an adversary armed with even a single missile capable of delivering a WMD-payload may consider it threatening. Using the first flight test results in threat projections a few years earlier than those based on traditional definitions of deployment, which may not apply as well to the emerging threats.

Potential ICBM Threats to the United States

We project that during the next 15 years the United States most likely will face ICBM threats from Russia, China, and North Korea, probably from Iran, and possibly from Iraq, although the threats will consist of dramatically fewer weapons than today because of significant reductions we expect in Russian strategic forces.

- The Russian threat will continue to be the most robust and lethal, considerably more so than that posed by China, and orders of magnitude more than that posed by the other three.
- Initial North Korean, Iranian, and Iraqi ICBMs would probably be fewer in number—a few to tens rather than hundreds or thousands, constrained to smaller payload capabilities, and less reliable and accurate than their Russian and Chinese counterparts.
- Countries with emerging ICBM capabilities are likely to view their relatively few ICBMs more as weapons of deterrence and coercive diplomacy than as weapons of war, recognizing that their use could bring devastating consequences. Thus, the emerging threats posed to the United States by these countries will be very different than the Cold War threat.

North Korea. After Russia and China, North Korea is the most likely to develop ICBMs capable of threatening the United States during the next 15 years.

- North Korea attempted to orbit a small satellite using the Taepo Dong-1 SLV in August 1998, but the third stage failed during powered flight; other aspects of the flight, including stage separation, appear to have been successful.
- If it had an *operable* third stage and a reentry vehicle capable of surviving ICBM flight, a converted Taepo Dong-1 SLV *could* deliver a light payload to the United States. In these cases, about two-thirds of the payload mass would be required for the reentry vehicle structure. The remaining mass is probably too light for an early generation nuclear weapon but could deliver biological or chemical (BW/CW) warfare agent.
- Most analysts believe that North Korea *probably will test* a Taepo Dong-2 this year, unless delayed for political reasons. A two-stage Taepo Dong-2 could deliver a several-hundred kilogram payload to Alaska and Hawaii, and a lighter payload to the western half of the United States. A three-stage Taepo Dong-2 could deliver a several-hundred kilogram payload anywhere in the United States.
- North Korea is much *more likely* to weaponize the more capable Taepo Dong-2 than the three-stage Taepo Dong-1 as an ICBM.

Iran. Iran is the next hostile country most capable of testing an ICBM capable of delivering a weapon to the United States during the next 15 years.

- Iran *could test* an ICBM that could deliver a several-hundred kilogram payload to many parts of the United States in the latter half of the next decade, using Russian technology and assistance.
- Iran *could pursue* a Taepo Dong-type ICBM. Most analysts believe it could test a three-stage ICBM patterned after the Taepo Dong-1 SLV or a three-stage Taepo Dong-2-type ICBM, possibly with North Korean assistance, in the next few years.
- Iran is *likely to test* an SLV by 2010 that—once developed—could be converted into an ICBM capable of delivering a several-hundred kilogram payload to the United States.
- Analysts differ on the likely timing of Iran's first flight test of an ICBM that could threaten the United States. Assessments include:
  - *likely* before 2010 and *very likely* before 2015 (noting that an SLV with ICBM capabilities will *probably be tested within the next few years*);
  - no more than an *even chance* by 2010 and a *better than even chance* by 2015;
  - and *less than an even chance* by 2015.

Iraq. Although the Gulf war and subsequent United Nations activities destroyed much of Iraq's missile infrastructure, Iraq could test an ICBM capable of reaching the United States during the next 15 years.

- After observing North Korean activities, Iraq *most likely would pursue* a three-stage Taepo Dong-2 approach to an ICBM (or SLV), which could deliver a several-hundred kilogram payload to parts of the United States. If Iraq could buy a Taepo Dong-2 from North Korea, it *could have a launch capability* within months of the purchase; if it bought Taepo Dong engines, it *could test* an ICBM by the middle of the next decade. Iraq probably would take until the end of the next decade to develop the system domestically.
- Although much less likely, most analysts believe that if Iraq were to begin development today, it *could test* a much less capable ICBM in a few years using Scud components and based on its prior SLV experience or on the Taepo Dong-1.
- If it could acquire No Dongs from North Korea, Iraq *could test* a more capable ICBM along the same lines within a few years of the No Dong acquisition.
- Analysts differ on the likely timing of Iraq's first flight test of an ICBM that could threaten the United States. Assessments include *unlikely* before 2015; and *likely* before 2015, possibly before 2010—foreign assistance would affect the capability and timing.

Russia. Russia's strategic offensive forces are experiencing serious budget constraints but will remain the cornerstone of its military power. Russia expects its forces to deter both nuclear and conventional military threats and is prepared to conduct limited nuclear strikes to warn off an enemy or alter the course of a battle.

- Russia currently has about 1,000 strategic ballistic missiles with 4,500 warheads.
- Its strategic force will remain formidable through and beyond 2015, but the size of this force will decrease dramatically—well below arms control limits—primarily because of budget constraints.
- Russia will maintain as many strategic missiles and associated nuclear warheads as it believes it can afford, but well short of START I or II limitations.
  - If Russia ratifies START II, with its ban on multiple warheads on ICBMs, it would probably be able to maintain only about half of the weapons it could maintain without the ban.
- We judge that an unauthorized or accidental launch of a Russian strategic missile is highly unlikely so long as current technical and procedural safeguards are in place.

China. Chinese strategic nuclear doctrine calls for a survivable long-range missile force that can hold a significant portion of the US population at risk in a retaliatory strike.

- China's current force of about 20 CSS-4 ICBMs can reach targets in all of the United States.
- Beijing also is developing two new road-mobile, solid propellant ICBMs.
  - It conducted the first flight test of the mobile DF-31 ICBM in August 1999; we judge it will have a range of about 8,000 km and will be targeted primarily against Russia and Asia.
  - We expect a test of a longer range mobile ICBM within the next several years; it will be targeted primarily against the United States.
- China is developing the JL-2 SLBM, which we expect to be tested within the next decade. The JL-2 probably will be able to target the United States from launch areas near China.
- By 2015, China will likely have tens of missiles targeted against the United States, having added a few tens of more survivable land- and sea-based mobile missiles with smaller nuclear warheads—in part influenced by US technology gained through espionage.
- China has had the technical capability to develop multiple RV payloads for 20 years. If China needed a multiple-RV (MRV) capability in the near term, Beijing could use a DF-31-type RV to develop and deploy a simple MRV or multiple independently targetable reentry vehicle (MIRV)[1] for the CSS-4 in a few years. MIRVing a future mobile missile would be many years off.
- China is also significantly improving its theater missile capabilities and is increasing the size of its SRBM force deployed opposite Taiwan.
- We assess that an unauthorized launch of a Chinese strategic missile is highly unlikely.

Foreign assistance

Foreign assistance continues to have demonstrable effects on missile advances around the world. Moreover, some countries that have traditionally been recipients of foreign missile technology are now sharing

[1] An MRV system releases multiple RVs along the missile's linear flight path, often at a single target; a MIRV system can maneuver to several different release points to provide targeting flexibility.

more amongst themselves and are pursuing cooperative missile ventures.

- Russian missile assistance continues to be significant.
- China continues to contribute to missile programs in some countries.
- North Korea may expand sales.

Moreover, changes in the regional and international security environment—in particular, Iran's Shahab-3 missile test and the Indian and Pakistani missile and nuclear tests—probably will fuel missile and WMD interests in the region.

Sales of ICBMs or SLVs, which have inherent ICBM capabilities, could further increase the number of countries that will be able to threaten the United States with a missile strike. North Korea continues to demonstrate a willingness to sell its missiles and related technologies and will probably continue doing so, perhaps under the guise of selling SLVs. In the past, we judged that political conditions made the sale of a Russian or Chinese ICBM unlikely and that the geopolitical situation would not change enough for either to decide that the sale of an ICBM would be in its national interest. We have not detected the transfer of a complete ICBM by Russia or China, nor do we have any information to indicate either plans to transfer one. Projecting the likelihood of such a transfer 15 years into the future is very uncertain, driven in part by unpredictable future economic conditions, how Moscow will perceive its position vis-à-vis the West, and future Russian and Chinese perceptions of US ballistic missile defenses. As we attempt to project the politico-military-economic environment for that period, we continue to judge it unlikely that Moscow or Beijing would decide that the financial and perhaps strategic inducements to sell a complete ICBM, SLV, or the technologies tantamount to a complete ICBM, would outweigh the perceived political and economic risks of doing so.[2]

Warning Times and our Ability to Forecast Missile Development and Acquisition

In our 1998 annual report, we stated we had high confidence that we could provide warning five years *before deployment* that a potentially hostile country was trying to *develop and deploy* an ICBM. Because countries of concern could threaten to use ballistic missiles following limited flight-testing and before a missile is *deployed* in the traditional sense, we broadened our warning in the 1998 update memorandum to encompass the first successful flight test as the beginning of an "initial threat availability."

Our ability to provide warning for a particular country is depends highly on our collection capabilities. For some countries, we have relatively large bodies of evidence on which to base our assessments; for others, our knowledge of the programs being pursued is limited. Our monitoring and warning about North Korea's efforts to achieve an ICBM capability constitute an important case study on warning. In 1994, we were able to give five years warning of North Korea's efforts to acquire an ICBM capability. At that time, the Intelligence Community judged that:

- The Taepo Dong-1 was a two-stage, medium-range missile that could be tested in 1994 and deployed as early as 1996.
- The Taepo Dong-2 was a larger two-stage missile that would provide P'yongyang and other countries the potential to deliver nuclear weapons to parts of the United States, and biological and chemical weapons further. The

[2] The sale of an ICBM is prohibited by the START Treaty.

Community judged that the Taepo Dong-2 flight test program would begin within a few years of 1994 with initial deployment in 2000 or later.

Thus, the Intelligence Community warned that North Korea was pursuing an ICBM capability and would flight test an ICBM (the Taepo Dong-2) in the mid- to late 1990s. When North Korea did not flight test either Taepo Dong missile until 1998, and then used the Taepo Dong-1 as a space launch vehicle, it became clear that the Intelligence Community had:

- Overestimated that North Korea would begin flight testing the Taepo Dong-1 and Taepo Dong-2 missiles years earlier than turned out to be the case.
- Projected correctly the timing of a North Korean missile with the potential to deliver payloads to the ICBM range of 5,500-km.
- Underestimated the capabilities of the Taepo Dong-1 by failing to anticipate the use of the third stage.

North Korea demonstrated intercontinental-range booster capabilities roughly on the timetable projected in 1994, but with a completely unanticipated vehicle configuration. The Intelligence Community had expected North Korea to achieve an ICBM-range capability initially with the two-stage Taepo Dong-2, not the Taepo Dong-1 with an unguided third stage. North Korea's use of the Taepo Dong-1 with a third stage as a space launch vehicle was completely unexpected. Until the flight test, the Intelligence Community was unaware of the third stage and the intended use of the Taepo Dong-1 as a space launch vehicle.

Detecting or suspecting a missile development program and projecting the timing of the emerging threat, although difficult, are easier than forecasting the vehicle's configuration or performance with accuracy. Thus, we have more confidence in our ability to warn of efforts by countries to develop ICBMs than we have in our ability to describe accurately the missile configurations that will comprise that threat, especially years prior to flight testing. Furthermore, countries practice denial and deception to hide or mask their intentions—for example, testing an ICBM as a space launch vehicle.

We continue to judge that we may not be able to provide much warning if a country purchased an ICBM or if a country already had an SLV capability. Nevertheless, the initiation of an SLV program is an indicator of a potential ICBM program. North Korea and other countries, such as Iran and an unconstrained Iraq, could develop an SLV booster, then flight-test it as an ICBM with a reentry vehicle (RV) with little or no warning. Thus, we consider space launch vehicles, especially in the hands of countries hostile to the United States, to have significant ballistic missile potential.

We also judge that we may not be able to provide much, if any, warning of a forward-based ballistic missile or land-attack cruise missile (LACM) threat to the United States. Moreover, LACM development can draw upon dual-use technologies. We expect to see acquisition of LACMs by many countries to meet regional military requirements.

Space Launch Vehicle (SLV) Conversion. Nations with SLVs could convert them into ICBMs relatively quickly with little or no chance of detection before the first flight test. Such a conversion would include the development of a reentry vehicle (RV). A nation could try to buy an SLV with the intent to convert it into an ICBM; detection of the

sale should provide a few years of warning before a flight test, although we are not confident that we could detect a covert sale. Finally, many SLVs would be cumbersome as converted military systems and could not be made readily survivable, a task that in many cases would be technologically and economically formidable.

Countries might mask their ICBM developments as SLV programs. They could test the complete booster and in most cases the guidance system, which would have to be reprogrammed to fly a ballistic missile trajectory. They could not mask a warhead reentry under the guise of a space launch. Nevertheless, they could develop RVs and maintain them untested for future use, albeit with significantly reduced confidence in their reliability.

- If the country had Russian or Chinese assistance in a covert development effort, it could have relatively high confidence that the RV would survive and function properly.
- If a country developed an untested RV without foreign assistance, its confidence would diminish, but we could not be confident it would fail. Significant amounts of information about reentry vehicles are available in open sources. A low performing RV with high flight stability would be a logical choice for developing an ICBM RV with minimal, or no, testing. The developing country could have some confidence that the system would survive reentry, although confidence in its proper delivery of the weapon would be lower without testing.

Alternative Threats to the United States
Several other means to deliver WMD to the United States have probably been devised, some more reliable than ICBMs that have not completed rigorous testing and validation programs. The goal of an adversary would be to move the weapon within striking distance without a long-range ICBM. Most of these means, however, do not provide the same prestige and degree of deterrence or coercive diplomacy associated with long-range missiles, but they might be the means of choice for terrorists.

Forward-Based Threats. Several countries are technically capable of developing a missile-launch mechanism to use from forward-based ships or other platforms to launch SRBMs and MRBMs, or land-attack cruise missiles against the United States. Some countries may develop and deploy a forward-based system during the period of the next 15 years.

A short- or medium- range ballistic missile could be launched at the United States from a forward-based sea platform positioned within a few hundred kilometers of US territory. If the attacking country were willing to accept significantly reduced accuracy for the missile, forward-basing on a sea-based platform would not be a major technical hurdle. The reduced accuracy in such a case, however, would probably be better than that of some early ICBMs. The simplest method for launching a ship-borne ballistic missile would be to place a secured TEL onboard the ship and launch the missile from its TEL. If accuracy were a major concern, the missile and launcher would be placed on a stabilization platform to compensate for wave movement of the ocean, or the country would need to add satellite-aided navigation to the missile.

A concept similar to a sea-based ballistic missile launch system would be to launch cruise missiles from forward-based platforms. This method would enable a country to use

cruise missiles acquired for regional purposes to attack targets in the United States.

- A country could launch cruise missiles from fighter, bomber, or commercial transport aircraft outside US airspace. US capability to detect planes approaching the coast, and the limited range of fighter and bomber aircraft of most countries, probably would preclude the choice of military aircraft for the attack. Using a commercial aircraft, however, would be feasible for staging a covert cruise missile attack, but it still would be difficult.
- A commercial surface vessel, covertly equipped to launch cruise missiles, would be a plausible alternative for a forward-based launch platform. This method would provide a large and potentially inconspicuous platform to launch a cruise missile while providing at least some cover for launch deniability.
- A submarine would have the advantage of being relatively covert. The technical sophistication required to launch a cruise missile from a submarine torpedo or missile tube most likely would require detailed assistance from the defense industry of a major naval power.

Non-Missile WMD Threats to the United States. Although non-missile means of delivering WMD do not provide the same prestige or degree of deterrence and coercive diplomacy associated with an ICBM, such options are of significant concern. Countries or non-state actors could pursue non-missile delivery options, most of which:

- Are less expensive than developing and producing ICBMs.
- Can be covertly developed and employed; the source of the weapon could be masked in an attempt to evade retaliation.
- Probably would be more reliable than ICBMs that have not completed rigorous testing and validation programs.
- Probably would be more accurate than emerging ICBMs over the next 15 years.
- Probably would be more effective for disseminating biological warfare agent than a ballistic missile.
- Would avoid missile defenses.

The requirements for missile delivery of WMD impose additional, stringent design requirements on the already difficult technical problem of designing such weapons. For example, initial indigenous nuclear weapon designs are likely to be too large and heavy for a modest-sized ballistic missile but still suitable for delivery by ship, truck, or even airplane. Furthermore, a country (or non-state actor) is likely to have only a few nuclear weapons, at least during the next 15 years. Reliability of delivery would be a critical factor; covert delivery methods could offer reliability advantages over a missile. Not only would a country want the warhead to reach its target, it would want to avoid an accident with a WMD warhead at the missile-launch area. On the other hand, a ship sailing into a port could provide secure delivery to limited locations, and a nuclear detonation, either in the ship or on the dock, could achieve the intended purpose. An airplane, either manned or unmanned, could also deliver a nuclear weapon before any local inspection, and perhaps before landing. Finally, a nuclear weapon might also be smuggled across a border or brought ashore covertly.

Foreign non-state actors, including some terrorist or extremist groups, have used, possessed, or are interested in weapons of

mass destruction or the materials to build them. Most of these groups have threatened the United States or its interests. We cannot count on obtaining warning of all planned terrorist attacks, despite the high priority we assign to this goal.

Recent trends suggest the likelihood is increasing that a foreign group or individual will conduct a terrorist attack against US interests using chemical agents or toxic industrial chemicals in an attempt to produce a significant number of casualties, damage infrastructure, or create fear among a population. Past terrorist events, such as the World Trade Center bombing and the Aum Shinrikyo chemical attack on the Tokyo subway system, demonstrated the feasibility and willingness to undertake an attack capable of producing massive casualties.

Immediate Theater Missile Threats to US Interests and Allies
The proliferation of MRBMs—driven primarily by North Korean No Dong sales—has created an immediate, serious, and growing threat to US forces, interests, and allies in the Middle East and Asia, and has significantly altered the strategic balances in the regions.

- Iran's flight test of its Shahab-3, which is based on the No Dong, and Indian and Pakistani missile and nuclear tests may fuel additional interest in MRBMs.
- Pakistan has M-11 SRBMs from China and Ghauri MRBMs from North Korea; we assess both may have a nuclear role.
- India has Prithvi I SRBMs and recently began testing the Agni II MRBM; we assess both may have a nuclear role.

We judge that countries developing missiles view their regional concerns as one of the primary factors in tailoring their programs. They see their short- and medium-range missiles not only as deterrents but also as force-multiplying weapons of war, primarily with conventional weapons but with options for delivering biological, chemical, and eventually nuclear weapons.

Penetration Aids and Countermeasures
We assess that countries developing ballistic missiles would also develop various responses to US theater and national defenses. Russia and China each have developed numerous countermeasures and probably are willing to sell the requisite technologies.

- Many countries, such as North Korea, Iran, and Iraq probably would rely initially on readily available technology —including separating RVs, spin-stabilized RVs, RV reorientation, radar absorbing material (RAM), booster fragmentation, low-power jammers, chaff, and simple (balloon) decoys—to develop penetration aids and countermeasures.
- These countries could develop countermeasures based on these technologies by the time they flight test their missiles.

Foreign espionage and other collection efforts are likely to increase. China, for example, has been able to obtain significant nuclear weapons information from espionage, contact with scientists from the United States and other countries, publications and conferences, unauthorized media disclosures, and declassified US weapons information. We assess that China, Iran, and others are targeting US missile information as well.

Chairman WARNER. Senator Akaka.

Senator AKAKA. Thank you very much, Mr. Chairman. I welcome the Secretary and the Chief here to this hearing.

Mr. Secretary, as mentioned in your answer to Senator Reed, the Director of the CIA, George Tenet, testified before this committee yesterday that North Korea has a missile capable of reaching the west coast of the United States, which means that obviously they have the capacity to hit Hawaii. It is my understanding that the current Cobra Dane Radar that is to be part of the ground based missile defense test bed in Alaska cannot discriminate warheads on missiles launched from North Korea. Considering that North Korea

is the stated reason for the deployment of a ballistic missile defense system, are you requesting money in this budget to build a dedicated operational and X-band radar, which the Department has said is required for warhead discrimination?

Secretary RUMSFELD. Senator, first let me make a comment and then I would like to get the rest of the question answered for the record. North Korea is, I don't believe, the stated single reason for deploying a missile defense capability or a test bed, depending on which one someone likes to call it. It is to develop a capability, a missile defense capability more broadly and to test capabilities, and it would not simply be the Alaska interceptors or that radar. It would be multiple radars and multiple interceptors if, in fact, decisions are made to go forward with a fuller deployment, and it would require upgrading radars. But we will get you a precise answer.

General MYERS. The only thing I would add to it is when we think about missile defense, the Secretary took the labels off of national missile defense. Now we have missile defense. Whether it's strategic or tactical or national or local depends on where you are and where the missile is coming from. I think that's very helpful to the folks who we have fielded around the world and to our allies and our partners as well. So it is missile defense, it's more than just the pieces we've talked about.

Senator AKAKA. Mr. Secretary, we will be looking forward to hearing more about that.

[The information referred to follows:]

At the direction of the Secretary of Defense, we have developed a research, development, and test program that focuses on missile defense as a single integrated ballistic missile defense (BMD) system, no longer differentiating between theater and national missile defense. In programmatic terms, we no longer speak of national or theater missile defense. Operationally, the terms can take on different meanings depending on where you live. The distinction between them made sense a decade ago, when we faced the stark difference between a Soviet ICBM threat and an Iraqi Scud. Now it no longer does. The same North Korean missile aimed at Japan could be a national threat to our ally, but a theater threat to us—unless it were retargeted toward the United States, in which case it would become national again. Furthermore, at some point in time, a short-range missile could threaten our homeland just as well as an ICBM could, if, say, it were launched from the sea off our coast.

Senator AKAKA. General Myers, in your posture statement, you mention the 2002 Unified Command Plan, the plan which created the United States Northern Command (NORTHCOM) and determined how it will provide military assistance to the Homeland Security Department. Given the fact that Hawaii does not fall within the jurisdiction of NORTHCOM, how will the Department ensure that there is appropriate coordination between NORTHCOM and U.S. Pacific Command (PACOM) regarding homeland security for Hawaii and the Pacific Island territories?

General MYERS. Senator, I can answer the military part of that. The responsibility that NORTHCOM has is for the continental 48 States and Alaska, and PACOM has responsibility for Hawaii. So for the military part of that, PACOM and Admiral Tom Fargo will handle that portion.

In terms of the relationship between the Homeland Security Department and Hawaii and those functions, you're going to have to ask Secretary Ridge. I'm not familiar with how he is going to work that with your State.

Senator AKAKA. Thank you. General Myers, your response to Senator Warner's question on the readiness of troops was that our troops are "absolutely ready." You also mentioned the negative effects of environmental loss on military readiness. Can you reconcile these two statements? What exactly is the impact of environmental encroachment on the readiness of our troops?

General MYERS. One of the cases that I think is probably right before our eyes is the one in Guam where the Navy is prohibited from flying because of the Migratory Bird Act, and the case that is being talked about in the sense of a court case is the chance that an aircraft might hit a bird and that would be in violation of the act. If that court case shuts down a training range in Guam, then we're going to have to look for work-arounds. You might be able to do it in one location, but as you have to do that in other locations—I mean, I have been flying for 37 years and we have many bird strikes. It's nothing against the bird or against the species. [Laughter.]

So we have to find a way to address this in a more rational way so that an act like the Migratory Bird Act, which is an important environmental act, does not limit our training. That's one example. There are some other ones as well, but I think we need to find some ways to work around it so we can conduct our military training in harmony with the need to protect the environment.

I think Senator Inhofe said it well, and I didn't have to repeat it, but the Department of Defense spends enormous amounts of money in complying with environmental law. When I was Commander of the U.S. Air Force Space Command, Vandenberg Air Force Base sits in a State that is very environmentally conscious. I think the State of California will tell you that we were great stewards of the land at Vandenberg. We handle some very dangerous stuff out there in terms of rockets and the fuels and the things we do. So, I would just say we go to enormous effort to try to do this right, but in a few cases it's inhibiting our training.

Senator AKAKA. Thank you for your responses. Mr. Chairman, my time has expired.

Chairman WARNER. We wish to clarify, the ranking member and myself, this very important exchange on the environment. I hope you will elaborate in the record as to other problems, but I believe this committee, under the leadership of our distinguished ranking member, cured one problem last year.

Senator LEVIN. That was the Migratory Bird Act.

General MYERS. I think that one was——

Senator LEVIN. Well, the one example you used this morning is the one we've taken care of, we legislated that issue so that the Migratory Bird Act no longer applies to military readiness activities, including training. Not saying there aren't other problems, but we did at least cure that one.

General MYERS. We appreciate that very much. We did make some headway.

Chairman WARNER. More work remains to be done by Congress, working with the environmental community to try and resolve other problems, and I think it will be important and responsive.

General MYERS. I will get you a statement for the record of those other issues that are still outstanding.

Chairman WARNER. Thank you very much.

[The information referred to follows:]

In February, I expressed my concern over the adverse impacts and unforeseen consequences the application of various environmental laws are having on military training and testing activities, and, consequently, on the readiness of our Armed Forces. These are not novel concerns. The Vice Chiefs of the Army, Navy, Marine Corps, and Air Force testified about these issues before the Senate Environment and Public Works Committee in July 2002. Various senior military officers and political appointees of the military departments and DOD have testified before the respective Armed Services Committees on these same concerns over the past 2 years. Although Congress began consideration of these important issues last year, it was only able to provide temporary relief with respect to one statute, the Migratory Bird Treaty Act. While grateful for this support, we believe more needs to be done.

Although measuring the full impact of environmental requirements on readiness is difficult, my professional assessment is that the impacts, and consequently the challenges, we face in providing the most effective training and equipment have grown rather than diminished. For example, the deployment of a critical new defensive sensor to deal with the threat of quiet diesel submarines deployed by North Korea, Iran, and other potential adversaries was recently restricted by court order despite an unprecedented research program by the Navy to ensure that marine mammals would not be injured. Diverse examples of encroachment abound, ranging from our inability to train with smoke on military ranges to limitations on stationing and use of high performance fighter aircraft such as the F–22 due to the Noise Control Act.

I assure you, we are working on better ways to quantify how encroachment affects our ability to train and equip our forces; however enough is known right now to convince me that we need legislative relief.

This year, the Services are seeking legislative clarification where laws are being applied beyond their original legislative intent, creating a vast amount of unnecessary litigation. Our proposal would confirm—not change—two Clinton administration environmental policies that support military readiness, but are threatened by lawsuits.

First, it would confirm the military bases' "Integrated Natural Resources Management Plans" may, if sufficiently protective, substitute for Endangered Species Act "critical habitat" on military bases. These plans, developed in cooperation with State and Federal regulators, have made Department of Defense one of the best stewards of endangered species in the world. Unlike our plans, critical habitat designation can impose rigid limitations on military use of our bases, denying Commanders the flexibility to manage their lands for the benefit of both readiness and endangered species.

The Department of Defense bill would also codify Clinton administration policies under the Marine Mammal Protection Act that support vital antisubmarine warfare (ASW) programs. The prior administration adopted science-based policies under this act that focused regulation on biologically significant impacts on animals. Under this policy, the Navy was able to work with regulators to get permits for ASW technologies needed to protect our carrier battle groups. But litigants have succeeded in overturning these policies, and have obtained an injunction limiting testing of this vital ASW technology.

Our mission is to be prepared to defend the country wherever and whenever necessary. Readiness requires anticipating conflicts and developing weapons, sensors, and tactics necessary to prevail. It is vitally important that we are not constrained in fully training our Service men and women as we innovate to meet tomorrow's conflicts. Modern warfare is a "come as you are" affair. The soldiers, sailors, airmen, and marines who saw action in Afghanistan in the fall of 2001 used the weapons, sensors, and tactics that they trained with the previous summer. We have learned that a host of factors and decisions, including urban sprawl, regulations, litigation, and accommodations, although reasonable when viewed in isolation, have cumulatively diminished the military departments' ability to train and test effectively. Our troops are "ready" when they deploy, but it is becoming more and more difficult to ensure this status because we cannot use the military test and training ranges and at-sea operating areas for the purposes for which they are dedicated. We have to resort to "workarounds" that are increasingly burdensome.

An equally important encroachment concern is transporting units away from their home installations for months at a time for necessary training prior to deployment overseas. This workaround imposes a particular burden on our military families, not just the troops. Workarounds also segment training so that we can't "train as we fight." This makes effective training more difficult and less realistic. In a world

where any country with money can buy the best weapons, training is critical to victory. We owe this critical edge, the winning edge, to the young men and women we send in harm's way.

We are not abandoning our outstanding stewardship over the lands entrusted to us or shrinking from environmental protection requirements. We are trying to restore balance where environmental requirements adversely affect uniquely military activities necessary to prepare for combat. We ask that you carefully consider the proposed changes that the Department of Defense brings forward and provide the tailored but effective relief we seek.

Chairman WARNER. Senator Sessions, before you begin, the Secretary must be back at the Pentagon to receive a foreign minister of defense. I want to conduct this in such a way that everyone gets one round, so I shall have to be somewhat abrupt on the 6 minutes.

Senator SESSIONS. Thank you, Mr. Chairman, you can hold me to my time.

Mr. Secretary, I think it is past time that we evaluate our force structure and deployment situation, particularly in Europe. The situation is greatly changed today. We don't have the same threats, they don't come from the same areas of the world, and your comments today that Austria is blocking or refusing to allow the transport of military equipment is just a stunning development. It must be extremely frustrating for you and the Department of Defense leadership.

I talked with a number of Senators just briefly yesterday and will submit a letter to you today that calls on the Department of Defense to conduct a study of where we are in Europe, to reevaluate how we should deploy our resources there to consider first of all our national defense, and second consider the tempo of deployment of our personnel and separation from families and that sort of thing.

I guess my question to you would be, would you conduct such a study? If one is already in the works, would you share it with us? I would just say that virtually every Senator I've talked to shared that view strongly. Senator Collins and Senator Bayh mentioned it, and I think 15 Senators that signed this letter indicate that we think it's past due. We are doing that in the United States, let's do it around the world also.

Secretary RUMSFELD. Exactly. We have to look at our base structure across the globe. We're already conducting the study, it's well underway. We have not only one going on in the Office of the Secretary of Defense, we have one going on with the area of responsibility from commanders in each case, and it requires a good deal of sensitivity because it just has—a base in the United States has to be coordinated with the Congressmen, Senators, and the local people, and so too with our allies around the world. We have to make sure we all work off the same sheet of music and that we bring them along in terms of those discussions. So we will be happy to have a hearing or share that, and we don't need to do anything separate because it's well underway.

Senator SESSIONS. Mr. Secretary, you served in Europe in NATO, and you served as Secretary of Defense previously and have observed this whole situation for many years. It's odd to me and I would like to ask you if you agree, that we talk about multilateralism and unilateralism, whereas at this point it appears that

16 nations in Europe support our position and only three oppose our position.

What do you do in circumstances like that? Aren't we getting to a point in history where we simply have to make sure we have broad support among nations of goodwill and try to make sure with that support we defend our just national interests?

Secretary RUMSFELD. We do indeed. I was hoping to come back to Senator Levin. He kept talking about us proceeding unilaterally and going it alone in the opening statement. I didn't have a chance to comment, but you're quite right. We have today 90 nations in the global war on terrorism. We don't have a single coalition, we have multiple coalitions. The mission determines which countries feel they want to participate in that coalition. We ought not have a situation where the coalition determines the mission, because then it stops everything, because there's always somebody who's not going to like it.

Now, it is of value to have countries. In the case of Iraq, we have dozens of countries participating already in a variety of different ways in terms of basing and overflight and what have you, offering forces, and it seems to me that you're correct. We do have to think through what we believe is in our country's best interests and in the world's best interests. Then what we have to do is go out and persuade other countries that that is something that needs to be done and then we have to work with those like-thinking countries to get it done.

In the case of military activity, we can do that without unanimity. For example, on the Turkey thing, we can go ahead and help Turkey using the 16 countries and not the 3 that are blocking it in NATO. Who loses in that case? NATO loses. Turkey's not going to lose. We're going to see that they get what they need, the 16 countries are. So it seems to me that your point is a valid one.

Senator SESSIONS. As NATO has expanded the consensus or unanimity rule answers itself. It's very unlikely, it seems to me, that everyone is going to agree on even important policies. Of course, in the United Nations, we have the permanent Security Council veto so one nation there, China or Russia, has an absolute veto on U.N. military action, so it's just plainly obvious to me that we need to be respectful of those organizations, seek their support, confer with them, but ultimately we're going to have to do what the consensus of the world believes is good for the world, and our country in defending our own interests.

Secretary RUMSFELD. That certainly is the obligation of this body and the President of the United States, to do that. I will say this. The expansion of NATO has had an interesting effect. The newer countries coming in are countries that have lived under dictatorships and under communism, and they tend to bring an energy and an awareness and a sensitivity to those dangers that's fresh and helpful to the institution.

Chairman WARNER. Thank you, Mr. Secretary. Senator Pryor, to be followed by Senator Ben Nelson and Senator Bill Nelson, and then I will move down the order from there.

Senator PRYOR. Thank you, Mr. Chairman. First I have a couple of very quick questions from Senator Robert Byrd, who could not

be here at this moment. Mr. Secretary, what are your estimates of how much a war with Iraq might cost?

Secretary RUMSFELD. That is an answer that unfortunately I believe is not knowable. I am told there are people at the OMB that have estimated it at something between $50 and $60 billion. The one thing I do know is it would cost, if the President decided that it was necessary and force had to be used—a heck of a lot less than September 11 cost, and September 11 would cost a heck of a lot less than a chemical or biological September 11.

Senator PRYOR. Thank you for that answer. You have said that you expect to send a supplemental appropriations request to Congress soon. How much will the Pentagon request in that supplemental and are there two variations of that, one in the event that we continue with weapons inspections and the other in the event we're at war, or will it just be one supplemental request?

Secretary RUMSFELD. I don't know. It's a matter that the OMB and the White House are working on. We do know certain facts. One fact is that we're spending about $1.5 or $6 billion a month since October 1 for the global war on terror. So we've already spent October, November, December, January, 4 months, which is $6 billion, and a portion of February, and that does not count the cost of the force flow for Iraq, which is probably in the neighborhood of $2 billion-plus.

So for the year, if the global war on terror went on at a billion-five and you had to add some additional force flow, it's pretty clear that even without a conflict in Iraq, we would be well short and need a supplemental of roughly that magnitude, but that's something that depends on what takes place and we will know more about that as we go forward.

Senator PRYOR. Secretary Rumsfeld, I want to talk about the C–130J program, which I know General Myers is very familiar with. As we continue this war on terrorism, the C–130J seems to me to be a very important part of that effort as well as all the efforts that the military is involved with. Something that my staff has talked to me about—and again, I'm new here—but we talked about the C–130J multiyear proposals and as I understand it, are you making that proposal because it may help you plan and even may help you save money on the program?

Dr. ZAKHEIM. Well, we are certainly looking at that. As I understand it, the current estimate is that it will save some money. We're refining that as we speak and I have every certainty that we will be finalizing that very soon.

Senator PRYOR. It just so happens that the Little Rock Air Force Base is the premier training facility for C–130Js, not just for our forces but for anybody in the world. Do you see that changing any time in the future? General Myers, you may want to take a crack at that one.

Secretary RUMSFELD. Let me make a comment. Congress passed a proposal for base closings and what we decided to do is to try to proceed in an orderly way and not comment on individual bases prospectively. It just seems to me that the process has to be an open one, it has to be one that is done in a serious and nonpartisan way. One of the reasons that they didn't have a base realignment and closure (BRAC) for several years was the accusations that they

were not looked at in a fair and open and balanced way, and I want to see that this is done that way. Therefore, I'm not inclined to speculate about the future.

Senator PRYOR. General Myers.

General MYERS. I think it would be speculation on my part. I sit here with a blue uniform, but I am not that familiar with Air Force plans.

Senator PRYOR. Another facility that I just want you all to be sensitized to and know about and be aware of is the Pine Bluff Arsenal in Arkansas. Right now it is in the process of disposing of chemical weapons. It's the only active chemical defense arsenal in the Department of Defense, and it also has a joint venture with the American Red Cross where they do readiness training for first responders. It seems to have a very varied and important mission in today's world. Just as you all are considering your plans in the future, I just want you to again be reminded of the asset that you have currently in the Department of Defense and be mindful that it's there and actually has enough real estate to expand. For example, I think the DOD made a determination in the late 1990s that if you do a vaccine program that would be the best facility that you currently have. So, I just wanted to remind you to be aware of that.

Chairman WARNER. Thank you, Senator.

Senator Ben Nelson.

Senator BEN NELSON. Thank you, Mr. Chairman. Mr. Secretary, General Myers, I appreciate very much your being here again today to help us understand some of the difficulties in the world today that certainly you face each and every day.

Mr. Secretary, you made a prediction this past weekend that within a year or 2 or 3, North Korea would become the leading example of why in your view international agreements designed to stop the spread of nuclear weapons are failing, and today you elaborated a bit on your thoughts about cooperation, that it isn't necessarily working in the world the way that we would like to see it.

Do you believe that, in many respects, North Korea's proliferation and supply of weapons and other armaments and related materials might expand to a more aggressive program that would ultimately lead to an arms race in Asia, which is obviously something that we don't want? Do you have any thoughts about that that you might share? I have a couple of related questions, but that's my first question.

Secretary RUMSFELD. I look at the situation with North Korea in this way. They will sell anything they have to anyone who wants it. They have been demonstrating that for years. You're correct. An announced or demonstrated nuclear capability and obviously relatively sophisticated ballistic missile capability on the part of North Korea is something that the neighbors have to be attentive to. The neighbors to the south, the neighbors to the north, and to the west, and to the east.

Now, there are a number of states in that neighborhood who have the ability to have nuclear weapons in relatively short periods if they wish to have them. That is not a good thing for the world. I also look at North Korea as a danger, not simply in Northeast Asia but a danger to the world. I mean, this is clearly a world prob-

lem. If you have a country that is capable of producing nuclear material sufficient to fashion six to eight nuclear weapons in a relatively short of period of months and is known to be selling them, it's a terrorist state, and that's a problem. It's not a problem to the United States, it's a problem to the world.

It seems to me that this is the reason I feel that the President is correct in attempting to see, which is now successful, in getting that problem put into the United Nations. Because the solution to proliferation can't be unilateral, it has to be a strong, fully enforced, agreed upon set of restrictions so that those kinds of weapons can be stopped and interdicted.

Senator BEN NELSON. In that regard, obviously the Nuclear Nonproliferation Treaty that North Korea was the first to withdraw from is not working today. Do you have any thoughts about what we might do to bring the rest of the world together where we could do something to deal with nonproliferation and nonsupplying of material and materiel to the rest of the world, particularly to those states and groups that would do harm to our neighbors and clearly do us harm as well?

Secretary RUMSFELD. I do have some ideas. They're not well developed, but we would not be facing the problem in Iraq today if the technologically advanced countries of the world had seen the danger and strictly enforced economic sanctions against Iraq sufficient that it would cause them to discontinue their weapons of mass destruction programs. We would not have this problem today.

Now, how do you get countries to step up and do something that is against their immediate self-interests in exchange for something that's in favor of their self-interest over the longer period? That is to say, stop commercial sales, stop pretending that dual use things are going to be used for good things and not bad things, and strictly enforce and prevent a country that's clearly in violation and clearly engaged in trafficking in these capabilities in a way that puts the world at risk.

I think the only way you do that is to go to their publics. I think the people of those countries have to be sufficiently concerned that they require their governments to behave in a rational way and not just a rational way for an immediate self gratification of some commercial license, but in a rational way that looks down 5 or 10 years and sees, for example, in the Middle East the possibility of four, five, or six countries having nuclear weapons, which is not a pretty picture.

Senator BEN NELSON. It's predictable with the direction things are going today. Let me commend you for, if not being patient, acquiring the appearance of patience, and I thank you for your answers today.

Chairman WARNER. We thank you, Senator.

Senator Bill Nelson.

Senator BILL NELSON. Thank you, Mr. Chairman. We are in the midst of enormous change and enormous challenge. Thank you for trying to get your arms around this problem and steering us in a direction that best protects our country.

On this debate about missile testing, why don't we just call it what it is instead of getting hung up on the labels? Say that we're going to deploy while we are still in the testing phase.

Secretary RUMSFELD. That's what I tried to do.

Senator BILL NELSON. I think it speaks for itself. One of the policy questions that I think you're going to have to answer, particularly since it looks like we're going to have the needs of our United States military overseas for the foreseeable future in nation building, and if you don't like that term, then use the term establishing political and economic stability. We're trying to do that in Afghanistan. We thought that it might only take us a year in Bosnia and we're in the seventh year, and clearly that will be the situation in Iraq as well.

The policy question is, are we going to continue to do that with other than the active duty military? My wife and I went on Thanksgiving to have Thanksgiving dinner with our troops in Bosnia and what I found was a Pennsylvania National Guard unit. They were pumped, they knew they were there for 6 months and they were going to rotate back.

I have been going to a lot of our National Guard ceremonies all over Florida, telling them that I'm there on behalf of a grateful nation for their service. But they went into the Guard—as did the Reserves—thinking that when their country called, that they were ready to respond and they are well prepared by the way, there is no question about their professionalism, but there is a question about their obligation and the length of time. Would you briefly comment and then we can carry on this dialogue for some period of time, because this is a policy question we have to ask. Do we up the active duty troops in order to keep the Guard and the Reserves as what they were intended to be?

Secretary RUMSFELD. Senator, first, thank you for visiting the troops. They appreciate it and we all appreciate it.

Second, I do worry a bit about the phrase "nation building." I take it as a little bit arrogant that we think we might know how to build a nation for somebody else. I like to think of it as our responsibility. For example, in Afghanistan we are trying to create a security environment that is hospitable to their rebuilding their own nation, and do that with the cooperation of other nations. I think that's what we're trying to do there, and clearly that's what one would have to do in Iraq if it came to that.

With respect to the end strength issue, there are so many things we can do to make better use of the current end strength we have in uniform. We can pull down in places where they have been for too long. In the Sinai, we're pulling out about half of those. There are four other places where we're in the process of doing the same thing. We're looking at the bigger chunks in Asia and in Europe, and we're going to do that.

There's also a way that General Myers and I are working hard on trying to figure out a better way to alert, mobilize, and deploy Guard and Reserve Forces so that they continue to feel what they feel now. They're proud to be called, they're proud to serve, but they want to serve in something that's real and they don't want to get called up four or five or six times in a short period of time because it's very difficult for their families, it's difficult for their employers. But they are pumped and doing a terrific job.

What we have to do is get a more nuanced system. At the present time, our deployment system is basically one big switch

over here, peace, and the other is World War III over there, and you pull it and everything happens. We're trying to figure out how to disaggregate this thing in a way that's respectful of the Guard and Reserve and their employers and their families. If we need additional end strength we will be up to ask for it, but at the moment I don't think we do. If we can get the people in uniform that are doing jobs that are not military jobs, that will save some people right there.

Senator BILL NELSON. If they know they are there for 6 months, they're ready and they're pumped. But if suddenly that's a year, and then they're coming home after that year and they suddenly get diverted someplace else, then you have another whole situation with regard to our promise to them and our promise to their employers.

Secretary RUMSFELD. Senator, you're exactly right. The other thing I didn't mention, which I should have, is that back in the 1970s after Vietnam, the Department of Defense took certain skills and put them in the Reserves, 100 percent in the Reserves. They did it so that if they were ever to go to war again, there would have to be a major call-up. That's not a good idea, because we're going to have a series of these things just as sure as we're sitting here, and what we have to do is make sure we have people on active duty to do all the skills so that we do not have to keep calling those same people up four or five times.

Senator BILL NELSON. Mr. Chairman, assured access to space is another issue, not only what was brought up here earlier on the EELVs, but the technologies that you all clearly have an interest in at DOD and other agencies in developing as a follow-on to the space shuttle. We are at a point that decisions are going to have to be made over the next several months on that, and you all at DOD have to weigh in on that, because it's going to be extremely important to you. You have to have a backup system other than these two EELVs, and right now the only capability other than that, once all the EELVs are gone, is the space shuttle.

Chairman WARNER. Senator, thank you. The Senate, indeed Congress is fortunate to have your services, having given much of your life and career to this subject. You're following in the shoes of your distinguished predecessor who was on this committee, Senator Graham.

Senator BILL NELSON. Well, bless you. Mr. Chairman, I would just conclude by saying two names, Scott Speicher, let's not forget him.

Chairman WARNER. That's an important message and I share with you that message.

Senator Dayton.

Senator DAYTON. Thank you, Mr. Chairman, Mr. Secretary. It is a perilous irony, the fact that we're talking here about a $400 billion expenditure for the most overwhelming military force the world has ever known, and at the same time we're telling our citizens to go get out and get duct tape and plastic wrap and water. You said yourself, sir, today, that this is the most dangerous security environment the world has ever known.

It reminded me of the ominous forewarnings of condition orange, what Robert Kennedy said after the Cuban missile crisis: "No ac-

tion is taken against an adversary in a vacuum. Escalation on one side brings a counter-response. A government or people will fail to understand this only at their great peril."

It seems to me that for the last 55 years our leaders have understood that. Both Republican and Democratic Presidents also faced dangerous dictators who had weapons of mass destruction, the heads of countries that were hostile to the United States, the former Soviet Union, China, North Korea, but none of those Presidents attacked those countries to eliminate that threat, and the threat was ongoing, it was dealt with and contained diplomatically, and the peace and security of this Nation were preserved.

The principal reason I believe that they didn't do so was because of mutual assured destruction, because we knew that their country could inflict destruction on our citizens, our countryside, our cities, that was intolerable to us, just as we could annihilate them.

I guess my question, sir, is why would we expect that Iraq will be any different? If the United States invades that country, is destroying their cities, their citizens, causing casualties among their citizens, why won't we expect that they will retaliate within the United States with every destructive force that they could marshall, and why wouldn't we expect that Osama bin Laden would do his utmost to exploit that situation and to twist it in the eyes of the world to be seen as something different from what it is? How do you assess our ability to protect our citizens in their cities and their schools and their homes from retaliation if we invade Iraq?

Secretary RUMSFELD. Senator, let me say several things about that statement. First, if one goes back to the Soviet Union and mutually assured destruction, one thing we know is that time was on our side. If we could contain the Soviet Union, which had massive nuclear capability and was attempting to expand its interests throughout the world, in Africa, Latin American and Europe, and was a serious conventional as well as unconventional military threat, we felt if we could contain it for a long enough period, that their economic situation would change because it was a rotten system. We were right.

With terrorist states that have demonstrated their willingness to use weapons of mass destruction on their own people, that fire ballistic missiles into their neighboring countries, that invade their neighboring countries, time is not on our side. These weapons that they have are such enormous power and they are not constrained. These are single dictators. These are not—I'm not going to start naming names again, I just make more news that I don't need to make.

Let me start that sentence over by saying that these are not democratic systems, they aren't even systems like the old Soviet Union that had a Politburo where all power was not concentrated in a single person. They discussed things. You can go back and read the history books. These people, the dictators in the terrorist states today, don't have to discuss things with anybody. They can furthermore act in a way that masks what they have done. They can use a terrorist network to disseminate a weapon of mass destruction.

It seems to me that what we need to remember is the last phrase I believe you used was something to the effect that Osama bin Laden would conduct a retaliatory attack or something.

Senator DAYTON. I said take advantage of the situation or exploit the situation.

Secretary RUMSFELD. Right. What situation was he taking advantage of on September 11? I mean my goodness, they don't need excuses, they just do it. We see threat reports every day, dozens and dozens of them. In the last 6 months there have been terrorist attacks probably in what, 8, 10, 12 countries?

Senator DAYTON. I would move to my next question. If you conclude Iraq as synonymous with al Qaeda as an ongoing terrorist threat, I guess I would make a distinction between them and just point out—and I don't disagree with your assessment of the dictator there or the single control that he apparently has—the actions that you and others have described essentially took place 12 years ago. I don't think containment has been the complete failure that you've described it to be with Iraq, and I would just say that we didn't know time was on our side when we were dealing with the Soviet Union.

What we did know was that if we went in there militarily, we were going to experience what Winston Churchill said of World War I, "the price of victory is so great as to be indistinguishable from the cost of defeat." We're going to, I fear, inflict serious damage on this country, and that was my question. What is our ability to defend this country, protect our citizens if we go in in the next 2 weeks or 2 months into that country militarily and start inflicting destruction on them?

Secretary RUMSFELD. I'd like to make two points on it. Number one. Let's go back in time to September 2000, 1 year before September 11, 2001. What if we had scraps of information, a telephone call, a credit card, a person learning how to fly and didn't care about landing, 5 or 8 or 10 of them, and we started connecting the dots. What would have been sufficient to cause us to take a preemptive act to stop that act? This is a society that for decades has thought of itself as being willing to absorb an attack and not do anything until after we've taken that attack, then marshall our resources and go out and do something about it. That's been our way.

I think today, post-September 11, an awful lot of people in our country properly would say well, by golly, if we had scraps of information and we could put it together, we should have preempted that attack. That's my guess.

Senator DAYTON. If you could have found al Qaeda and prevented it, absolutely. My time is up.

Chairman WARNER. Thank you very much, Senator Dayton.

Senator Clinton.

Senator CLINTON. Thank you very much, Mr. Chairman. Mr. Secretary, I want to follow up along the lines of what Senator Bill Nelson was asking and also Senator Dayton, because I think that in connected ways, they are focusing on the same issues with respect to how we are going to defend ourselves at home. As I understand it, in response to the threat level being raised to orange, the Pentagon has deployed heat seeking stinger anti-aircraft missiles at strategic locations around Washington, DC, and F–16s have been put

on 24-hour alert in Washington, as well as deploying additional detection radars. Can you tell me whether similar steps have been taken in New York?

Secretary RUMSFELD. Senator, we don't talk about deployments and I would like to take a minute to explain why. We change how we're arranged in a defensive and deterrent standpoint from time to time with respect to combat air patrols, and I know you're familiar with how we're doing that with respect to the east coast and other portions of the country. To the extent we announce them, it demystifies the problems for others, the people who would attack. To the extent we regularize them, we demystify them.

So what we do is we do things on an irregular basis. It's not thoughtless and random, but it is in fact irregular, and it's designed to do that to maximize the deterrent effect and to maximize our ability to defend at times when we believe the threat level requires it.

Senator CLINTON. I certainly understand and appreciate that and would not want to have any specific information, but clearly some of what has been deployed around Washington is visible to the naked eye and, therefore, we know it. There have been no similar reports of anything visible to the naked eye with respect to New York. Since we also have reason to believe that New York and Washington remain at the top of the terrorists' lists of targets, perhaps in another setting, I could at least be advised as to what if any actions, irregularly or regularly, are occurring with respect to New York.

Let me just move on, because I think that it ties into an ongoing concern of mine which is the readiness of our first responders here at home, whether they are dealing with an al Qaeda attack such as we saw on September 11, or a retaliatory attack in the wake of military action in Iraq. One of the problems that we are seeing surface that I talked to now Assistant Secretary McHale about during his confirmation hearings, is that many of the people who are being called up, who are pumped, who are ready to go, are first responders. They're police officers, they're fire fighters, they're EMTs, they are others who provide the first line of defense here at home.

Today I sent a letter to you, Mr. Secretary, and I'd like, Mr. Chairman, to make it part of the record.

Chairman WARNER. Without objection.

[The information referred to follows:]

February 13, 2003

The Honorable Donald Rumsfeld
Secretary of Defense
United States Department of Defense
The Pentagon
Washington, D.C. 20301

Dear Mr. Secretary:

I am writing to request specific information from the Department of Defense (DOD) relating to Reserve and National Guard issues discussed last month at the confirmation hearing of Assistant Secretary of Defense Paul McHale before the Senate Armed Services Committee (SASC). As you know, the total Reserve and National Guard now on active duty total more than 150,000.

At the January 30th SASC hearing, I asked Assistant Secretary McHale about recent news reports on National Public Radio and CNN indicating that the call-up of Reservists and National Guard units is resulting in the movement of significant numbers of firefighters, police officers and public health personnel from the front lines here at home in the war on terrorism to the front lines in the Middle East. A number of local officials, from Utah to West Virginia to San Antonio say that they as many as 10 percent of their first responders are also in the reserves. In New York City, 300 of our firefighters are also in the reserves.

Since I asked Assistant Secretary McHale about this issue at the end of January, a number of other stories have appeared in the news and we are slowly learning about the impact this will have on our first responders. In New York City, the police department spends more than $200,000 a week to cover their reservists and the fire department more than $100,000 a week. The Niagara Falls police department spent more than $350,000 to cover their officers away on military leave, and they expect to spend the about the same in 2003. Local law enforcement agencies in Utah, Kentucky, North Carolina, Texas, Georgia, and in many other states all say the same thing. According to the International Association of Fire Chiefs, they expect to lose almost 75,000 firefighters across the country in the next several months because of the reserve call-ups.

This dual responsibility is not limited to our local first responders, but to those at the federal level as well: custom officials, INS workers, FEMA firefighters, secret service to name a few. This issue is not only about the number of federal workers and first responders, the extra costs that are added to our struggling local budgets, but it is also about losing experienced professionals – experienced frontline soldiers we need to strengthen our domestic defense.

These call ups present a challenge for homeland security. At the same time that our first

responders are answering the call of duty to the Reserve and Guard, they are leaving a void in their home communities. Demands are being placed on many communities that are stretched too thin already and are receiving little or no homeland security funding from the federal government.

At the January SASC hearing, Assistant Secretary McHale committed that, if confirmed, he would try to determine if DOD has identified the first responders who are serving in the Reserves or Guard. I would appreciate a formal response including the DOD's assessment of the scope of this problem as soon as is practicable. Further, Assistant Secretary McHale reaffirmed DOD's commitment to back up civilian authorities in the event they become "overwhelmed, " and discussed the prospect of using the National Guard to backstop first responders who have been activated. Because first responders in communities are already being affected by the reserve call-ups, we must act without delay and I would like to know what strategy is being developed to meet this challenge to our homeland security.

I look forward to hearing from you soon.

Sincerely yours,

Hillary Rodham Clinton

Hillary Rodham Clinton

Senator CLINTON. That letter requests information as to the extent to which Reserve call-ups are impacting on our first responders. Because as we go forward with the planning that I understand you're doing with respect to how we deal with Guard and Reserve Forces, whether we confront redeployments of our end forces abroad, I think we have to recognize that if we're fighting a multifront war, which we may very well be, we know we're fighting one here at home already as well as against al Qaeda, and there may be others to come, we have to be sure that our first responder front line defenders have adequate force strength.

There are a number of reports that have surfaced in the press about what local officials are confronting. A number of mayors and county executives have said that as many as 10 percent of first responders are also in the Reserves. I know in New York City, 300 of our fire fighters are in the Reserves.

We also know that the cost to our communities at a time of decreased budgets, and I would argue inadequate Federal resources for our first responders, means that the police department in New York City spends more than $200,000 a week to cover their reservists, and the fire department spends more than $100,000 a week. A small community like the Niagara Falls Police Department spent $350,000 last year.

Nobody begrudges that. We want to continue to support our first responders. But I think as you look at the connections between what we have to be ready to do here at home as well as our force abroad, I hope that you will take that into account. It's not only at the local level; clearly it affects Customs officials, FEMA officials, Secret Service and others. I will look forward to having a response to this letter, because I know this is an issue that you will have to look into, but I hope that it is part of what we go forward in planning.

Finally, General Myers, I am concerned, as I was when I was First Lady, about the unexplained illnesses that many of our men and women return from the Persian Gulf suffering from. I was asked by the President to look into this during the last part of the 1990s and we came up with an independent blue ribbon commission to investigate the issues raised by these undiagnosed illnesses and the treatment that many of our veterans received, and there was a final report submitted to the President in January 1997, including a slate of recommendations to ensure that Gulf War veterans received all the care that they needed.

With U.S. troops once again being deployed to the Persian Gulf, and without us really knowing what caused a lot of the problems, we look at a number of sources, and I have to say, Mr. Chairman, I think this is an area that we want to go into in some depth in this committee, because we're seeing the same thing with respect to the first responders who responded to Ground Zero. The combination of whatever was in the air when those buildings were attacked and collapsed has caused extraordinary respiratory, pulmonary dysfunction and distress, and we're only beginning to try to understand it. Similarly when we saw our men and women coming back from the Gulf, we know that similar kinds of issues occurred, and now we have an added challenge of biological, chemical, and radiological potential attacks as well.

Now a year ago, in February 2002, a General Accounting Office (GAO) official testified before the House Veterans Affairs Committee that while military medical surveillance policies had been established, much still needed to be done to implement the system, and I would hope that we could get a report, General Myers or Mr. Secretary, about what we are doing to ensure proper implementation. Once somebody is a veteran it may be too late, so I would like to make sure that our Active-Duty Forces are getting the surveillance that they need for medical monitoring and health tracking before being deployed to the Gulf so that we can know and have a better research base to understand what they have been and might be exposed to, and I look forward to getting that information.

[The information referred to follows:]

The DOD has applied medical lessons learned from the Gulf War to help protect the health of military personnel before, during, and following deployments.

Subsequent to the publication of the final report of the Presidential Advisory Committee on Gulf War Veterans' Illnesses on December 31, 1996, DOD published the following policy: Department of Defense Directive (DODD) 6490.2, "Joint Medical Surveillance," and Department of Defense Instruction (DODI) 6490.3, "Implementation and Application of Joint Medical Surveillance for Deployments." On December 4, 1998, the Office of the Chairman of the Joint Chiefs of Staff (OCJCS) issued a memorandum on "Deployment Health Surveillance and Readiness" that supported implementation of the DODD and DODI. On February 1, 2002, the OCJCS updated the memorandum for health surveillance and readiness during all deployments. The memorandum provides standardized procedures, including occupational and environmental health surveillance procedures, for assessing health readiness and conducting health surveillance in support of all military deployments.

The DOD has developed and implemented a Force Health Protection (FHP) strategy that promotes and sustains the health of service members during their entire length of service. This adds an additional level of confidence to the specific programs for promoting and sustaining the health of military personnel prior to, during, and after deployments. Programs are in place to promote the fitness and health of personnel before they deploy, to protect them from disease and injury during deployment, and to provide comprehensive treatment for deployment-related health condi-

tions. The DOD has appointed a Deputy Assistant Secretary of Defense for Force Health Protection and Readiness to assure sustained focus on this strategy.

The DOD has implemented a Defense Medical Surveillance System (DMSS), which integrates numerous health, personnel, and deployment data sources. The DMSS database contains longitudinal health data on Service members (e.g., hospitalizations, ambulatory visits, reportable diseases), as well as integrated personnel and deployment data. The DOD has established a Serum Repository to archive periodic serum samples for all service members.

The DOD has instituted a deployment health surveillance program, which validates individuals' medical readiness to deploy. It includes pre-deployment and post-deployment health assessments (with copies archived in DMSS), complete immunizations, and other protective measures, and addresses health concerns upon return from deployments. This is another step in providing periodic longitudinal health monitoring of service members from the time they enter military service and includes periodic medical, dental, and readiness assessments; physical fitness testing; and comprehensive health care through the military health system.

Improved deployment health protection countermeasures are being designed to protect our Service members against an increasingly broad range of threats. Such countermeasures include the fielding of new biological and chemical warfare agent detection and alarm systems; the operational testing of integrated electronic medical surveillance and emergency response networks; current vaccines and anti-malarial drugs; and research on the next generation of vaccines and pharmaceuticals.

The Department has been conducting ongoing monitoring and weekly reporting of disease and non-battle injuries (DNBI) during deployments. We have enabled daily DNBI monitoring in order to increase the sensitivity of this capability to detect the earliest occurrence of a natural, chemical, or biological agent exposure. In addition, all deployed medical units report through command channels at least daily on their current situation enabling immediate notification of any potential disease outbreak.

The DOD has implemented improved occupational and environmental health surveillance programs for protecting Service members' health during deployment. The DOD has implemented operational risk management programs throughout the services that provide focus for all commanders to effectively manage both safety and environmental health risks and to mitigate the impact on our Service members.

The DOD has implemented improved environmental and clinical laboratory capabilities in theater. The DOD now routinely deploys preventive medicine, environmental health, theater medical surveillance, and forward laboratory teams in support of worldwide operations.

The Armed Forces Medical Intelligence Center develops products that assist our understanding of endemic diseases, vectors, and industrial hazards worldwide. All Services utilize these products to increase their knowledge of areas of operations and develop an initial assessment strategy during bed down operations and incrementally throughout the deployment. Preplanning and on-site environmental assessments of staging areas and base sites have been critical to protecting our Service members and documenting any potential ambient exposures. The integration of operational risk management provides field commanders the necessary information upon which they can act.

The DOD has improved health risk communication through the provision of regionally-specific medical intelligence, environmental risk assessments, medical threat briefings, pocket-sized health guides, and deployment-focused web sites.

The DOD has established three deployment health centers for health surveillance, clinical care, and health research that focus on the prevention, treatment, and understanding of deployment-related health concerns.

The DOD has coordinated with the VA to address deployment-related health concerns of Service members and veterans by jointly developing a Post-Deployment Health Evaluation and Management Clinical Practice Guideline (CPG), and by electronically sharing medical information through the Federal Health Information Exchange.

The DOD has taken steps to improve deployment-related medical record keeping by developing the Composite Health Care System II (CHCS II), the Theater Medical Information Program (TMIP), medical evacuation automated patient tracking and by expanding the electronic tracking and centralized collection of immunization data.

The DOD is working to improve tracking of individual and unit locations during deployment and development of a comprehensive Defense Integrated Military Human Resources System.

The joint force is superbly trained and comprised of dedicated men and women who represent DOD's most vital resource. Implementation of DOD's Force Health Protection Strategy is a critical component of our overall Force Protection strategy

and is essential to maintaining the health and fitness of servicemembers during their entire career. Force Health Protection programs have important life-long implications for health. The DOD has made tremendous strides since the Gulf War in monitoring and tracking the health of our personnel prior to, during, and following deployments. We will continually seek to improve these programs because Force Health Protection directly improves our readiness posture and the capability of our servicemembers.

Secretary RUMSFELD. Thank you.

Senator CLINTON. Thank you.

Chairman WARNER. Thank you, Senator, and I can speak from firsthand experience, having gone with you out to Walter Reed to visit the veterans who returned from Afghanistan, of the depth of your sincerity with regard to the subjects of which you speak. We thank you, and I do hope that you spearhead on this committee those efforts.

Senator Levin, I think we have conducted a very successful hearing. If you have no further comments, we thank you, Mr. Secretary. We thank you, General, and we thank you, Dr. Zakheim.

[Questions for the record with answers supplied follow:]

QUESTIONS SUBMITTED BY SENATOR ELIZABETH DOLE

FAMILY HOUSING PRIVATIZATION

1. Senator DOLE. Secretary Rumsfeld and General Myers, included in the $4.0 billion request for family housing for fiscal year 2004 is $346 million for family housing privatization of 36,262 units. This seems to me to be one of those truly transformational programs that goes directly to improving morale and helping the troops and their families make a positive decision about making the military a career. Inadequate, unattractive housing like the infamous Tarawa Terrace housing area at Camp Lejeune, North Carolina is simply unacceptable when we ask so much of our military personnel and their families. Is this privatization program the quickest, most cost effective way to replace the inadequate housing which exists all across the military?

Secretary RUMSFELD and General MYERS. Yes, housing privatization is the quickest and most cost-effective approach to addressing DOD's inadequate housing. Housing privatization is transforming and revitalizing military family housing at an accelerated pace.

In January 2001, the Department had about 180,000 inadequate family housing units. Today, primarily through housing privatization and our military construction program, we have reduced that number to roughly 163,000. This number will continue to come down as we pursue the goal to eliminate inadequate housing by 2007. As of March 2003, we have awarded 18 projects totaling 27,884 family housing units. Additionally, we project that the services will privatize over 38,000 family housing units during fiscal year 2003, and over 36,000 family housing units during fiscal year 2004. The Department's fiscal year 2004 budget includes our plan to privatize about 102,000 family housing units by the end of fiscal year 2004.

Housing privatization is cost-effective and allows DOD to tap the expertise of the private sector to address a large problem. Our policy requires that privatization yield at least three times the amount of housing that would be provided using traditional military construction. The projects awarded thus far leverage upfront appropriations by a ratio of 10:1. This means that DOD has invested $290 million, to obtain about $2.9 billion worth of equivalent MILCON housing improvements. Finally, our economic analyses indicate that when we look at long-term costs over the 50-year term of most of our deals, privatization is about 10 percent less costly.

2. Senator DOLE. Secretary Rumsfeld and General Myers, what has been our experience thus far with this housing in terms of quality of construction and the ongoing maintenance by the contractor?

Secretary RUMSFELD and General MYERS. Surveys of military tenants living in new and renovated privatized housing have given high marks to quality of construction and housing maintenance. Privatized housing must comply with local and State construction codes and standards, as well as DOD project specifications. In fact, in many of our early projects, the immediate improvement in housing maintenance won over residents to privatization well before any new units were constructed.

3. Senator DOLE. Secretary Rumsfeld and General Myers, are we devoting enough resources to family housing privatization?

Secretary RUMSFELD and General MYERS. Yes, we are devoting enough resources to housing privatization. We believe the current number of privatization projects in the pipeline and our fiscal year 2004 funding request is sufficient to keep us on track to eliminate our remaining inadequate family housing.

REFORMING THE WAY THE DEPARTMENT DOES BUSINESS

4. Senator DOLE. Secretary Rumsfeld, regarding that aspect of transformation which involves reforming the way in which the Department of Defense (DOD) does business, I understand there is a long history of disagreements and mistrust between Congress and the Pentagon that apparently led to all the strings now attached to or perhaps strangling DOD.

In part based on my own experience running the Departments of Transportation and Labor, and the American Red Cross, I want to support you in your desire for a more free hand to make sensible, cost-effective decisions. However, looking at it from this side of the table, what your request seems to me to be saying is: "Trust me." How can we strike the balance that gives you the help you need in your commendable desire to operate in a more business-like way while not abdicating our proper congressional oversight role?

Secretary RUMSFELD. We developed the system we live under today over the last 100 years—it is an industrial age system trying to meet the needs of an information age security environment.

Times have changed and we need change in order to meet the new threats we face today and will face in the future. It is imperative that we move away from industrial age policies to those that would allow us to face asymmetric threats of today's world. We don't have the luxury of knowing when and where he will strike next. Common sense dictates that we be lighter and quicker if we are going to protect the United States from the cold-blooded killers we face today.

I'm not asking you to "trust me," but instead I'm saying look at our track record. Our personnel system is based on the performance of 20 years of demonstration projects with over 30,000 employees currently working in those programs—working in an environment that promotes and rewards initiative and hard work instead longevity. Our record on the environment is a strong one. Over the past decade, the department has spent $48 billion to clean up sites from past activities and invested in new technology and programs to improve pollution prevention and ensure compliance with environmental laws. The Department manages 25 million acres of the Nation's land that includes over 300 threatened and endangered species that are protected on our ranges and installations. In many cases populations are maintained and restored under our stewardship. For example, on San Clemente Island in California's Channel Islands, islands often referred to as America's Galapagos Islands, the Navy has brought the island's endangered loggerhead shrike back from the brink of extinction. In the mid-1990s the population of these birds had declined to 13, making it one of the Nation's most endangered species. I challenge anyone to compare our environmental record. No, I'm not asking you to "trust me", just judge us on our record.

We do not challenge or seek to weaken Congress's oversight role. We welcome your reviews of our programs, understanding it is your constitutional responsibility. But together we share a common responsibility to provide the finest defense for the citizens of the United States. To do that we must shed the policies that have accumulated in the past and handicap us today.

5. Senator DOLE. Secretary Rumsfeld, among the proposals you have discussed, could you prioritize them in terms of their importance to the Department? Which gives the greatest leverage in savings to the Department?

Secretary RUMSFELD. To completely answer this question, I need to provide some background on how we got to where we are today. Over a year ago I challenged my staff to provide me with proposals that would make the Department more suited to face the challenges we would face in the 21st century. They did an excellent job. As we gathered all the inputs, we took a hard look at each proposal to make sure it would have the desired effect. We thinned the list down to what we considered our top priorities and worked with the administration to review them.

We worked closely with OMB, OPM, EPA, and other agencies and what came out of this process were the top priorities for the Department. So to answer your question, I have to tell you what you have in front of you are the Department's top priorities.

As far as the greatest leverage in savings, I don't think you can look at them in that manner. How do you put a dollar figure on a more motivated employee? How do you measure the life of a soldier, whose life is saved because of the realistic training he had before going to war? And finally, what price do you assign the ability to detect the advanced submarines of today so that a carrier battle group can carry out its duties in battle? The savings to the Department are real and tangible, but you cannot assign a dollar amount to them.

JUNIOR ROTC PROGRAM

6. Senator DOLE. General Myers, I've long been concerned about the fact that our young people seemed to have been turning away from public service in recent years. There's so much cynicism and doubt. I want to help inspire them to realize that public service, service to their country, is a noble thing to do and a great way to give back for all the blessings of this great country.

I have heard many good things about the Junior ROTC program and how well it has worked, particularly in many challenging inner city schools. Could you comment on the experience the military services have had with Junior ROTC?

General MYERS. The Services like the Junior ROTC program, and the program is extremely popular with educators and community leaders. Junior ROTC was originally an Army program; however, since 1964 all the Services offer the program and benefit from its instruction designed to teach citizenship and leadership, while instilling self-esteem, teamwork, and self-discipline. Although Junior ROTC is not a recruiting tool, traditionally about 45 percent of high school graduates with more than 2 years participation in the program end up with some military affiliation. Recent surveys reveal that youth who have been exposed to people with military experience enjoy a far greater understanding of the nature of military life than those who had no such exposure. A challenge confronted by recruiter's centers on the fact that a smaller military generates fewer veterans in communities and schools around the Nation. The Junior ROTC program represents an excellent means to address that problem. Moreover, the program builds better citizens, which strengthens the Nation and generates military awareness among youth and those who influence their career decisions.

7. Senator DOLE. General Myers, are we doing enough to make the Junior ROTC program more widely available, particularly to urban and inner city schools?

General MYERS. All interested schools are urged to apply to the Department of Defense for this program. Currently 450,000 students in 2,900 secondary schools participate. Additionally, there are more than 750 secondary schools on Service waiting lists with more applying. We will achieve the previously funded goal of 3,500 units by fiscal year 2006; however, funding for expansion beyond this is not programmed at this time.

8. Senator DOLE. General Myers, is this very cost-effective program adequately funded?

General MYERS. Yes. The Department recognizes the strength of this program and continues its growth to meet our needs. In fiscal year 2003, the Department budgeted over $252 million in JROTC, a 5-percent increase from fiscal year 2002.

FORCE READINESS

9. Senator DOLE. General Myers, in your prepared testimony you describe in some detail that U.S. forces are widely deployed and that threats to U.S. interests have not abated. You add that we have the capability to be militarily successful across a broad range of contingencies. As I look at the immense task facing our Armed Forces, I have some concerns about our ability to maintain the high combat-ready status of our forces. To consider the possibility of war in Iraq, while facing the reality of the ongoing war against terrorism focused in Afghanistan and the possibility of conflict on the Korean Peninsula, it really is daunting. What I want to ask you about is readiness. I know that you understand the importance of and want to sustain proper levels of training, ensure adequate supplies of equipment and spares, and perform needed equipment maintenance. How long can we sustain this deployment pace? If another deployment is required within the next 6 months, will we be able to support it with trained and ready forces?

General MYERS. Our forces are postured and ready to conduct operations as directed by the President. We can maintain and sustain this posture for the foreseeable future by maintaining readiness levels through a variety of measures to include

in-theater training and select unit rotations. However, the current pace of operations and future potential operations is not cost-free, and requires the services and Combatant Commanders to carefully manage assets and units that are in high demand, but in small numbers. The demand for critical capabilities (such as manned and unmanned intelligence, surveillance and reconnaissance assets, Special Operations Forces, intelligence analysts and linguists and command/control assets) has increased significantly with multiple contingencies. We will continue to prioritize the use of these critical units to preserve our surge capability to support future operations with trained and ready forces.

10. Senator DOLE. General Myers, are we getting stretched too thin? Can we feel confident that the safety of the equipment and of our men and women is not being compromised?

General MYERS. While our current posture of engagement is demanding, we are not stretched too thin. We possess the forces necessary to meet the demands of the Defense Strategy. Certainly our soldiers, sailors, airmen, and marines are working at an increased operational pace; a pace we would not want to sustain indefinitely, but when vital U.S. interests are at risk, our Armed Forces are eager to meet these challenges. Furthermore, the safety of our Armed Forces remains a top priority of mine and it is shared by the Joint Chiefs of Staff. Our forces have the best training and equipment available to ensure their safety is not compromised. Finally, we must continue to fund our forces' training and associated operations and maintenance accounts, to ensure their continued readiness and safety is sustained.

11. Senator DOLE. General Myers, are you seeing an impact on morale of the troops? How about the families?

General MYERS. The morale of troops is high. Service members are reporting a great deal of satisfaction with military life. Thanks to the help of Congress, several years of steady improvements in pay, benefits, and attention to quality of life issues have all contributed to high morale.

We are aggressively working to ensure families have the support they need during these stressful times and that the families have been contacted or receive information as quickly as possible to help them prepare for mobilization and deployment. Further, the family support professional and volunteer staffs are making every effort to reach out to the spouses, children, and parents of our Service members. Military families come together in times like these. This is part of the military's true strength.

12. Senator DOLE. General Myers, are there lessons that have been learned from the tragedies which occurred at Fort Bragg? Are the military services doing enough to ensure family readiness in this time of rapidly repeated deployments?

General MYERS. The Services already have plans to assist Service members and families with reunion once this contingency is complete. Helping families reunite is part of our family support tradition. In the process, if our professionals identify Service members and families in stress during reunion, we will provide additional professional resources to assist them.

All the Services have programs in place or have redirected resources to expand current capabilities to meet a wide variety of family needs during sustainment and post-operational phases. They are also using traditional media and technology to reach out to the Total Force, including those off the installations and Guard and Reserves to help keep family members connected.

13. Senator DOLE. General Myers, how can we in Congress help you?

General MYERS. With Congress' strong support, we have made significant progress in the war on terrorism and our overall military capabilities. However, maintaining readiness to meet the threats is a long-term commitment requiring critical congressional support. Timely approval of Defense budget supplemental funding is essential to maintaining current operations without negatively impacting readiness, training, and re-setting the force. With Congress' continued unwavering support, we will sustain our Armed Forces most decisive element—the individual soldier, sailor, airman, and marine . . . and will ensure we are prepared to meet all the threats to our national interests.

QUESTIONS SUBMITTED BY SENATOR BILL NELSON

FORCE REQUIREMENTS IN IRAQ

14. Senator BILL NELSON. Secretary Rumsfeld, any invasion of Iraq will likely require a large number of U.S. troops to serve in an occupation/stabilization force after the fighting stops. The size of this force will be larger if the United States attacks Iraq without U.N. sanction or NATO cooperation. If a war with Iraq takes place and substantial U.S. military forces are required to occupy Iraq in its aftermath, how would providing a large occupation force impact other operations in the global war on terrorism?

Secretary RUMSFELD. We cannot provide an exact answer to your question until more is known about the nature of the post-conflict environment. However, the U.S. Government will continue to pursue the various elements of this global war on terror simultaneously with any post-war operations in Iraq. The conflict with Iraq is an integral part of the larger global war on terrorism. Preventing regimes that support terror from acquiring weapons of mass destruction is a key objective in this war. The "Coalition of the Willing" supporting the war in Iraq continues to build. We expect both the U.N. and NATO to contribute to the post-war effort. This participation will relieve many U.S. troops who participated in the war effort, allowing us to remain prepared for other contingencies, including other aspects of the war on terrorism.

15. Senator BILL NELSON. Secretary Rumsfeld, will the United States need to mobilize additional Reserve Forces to carry out this occupation and stabilization mission?

Secretary RUMSFELD. The U.S. should not need to mobilize additional forces to maintain post-war stability in Iraq. We have mobilized sufficient forces to continue our ongoing operations, meet our international commitments, and continue to protect the American homeland. After we have liberated Iraq, we expect a "Coalition of the Willing" will aid the U.S. in maintaining stability in Iraq as a representative Iraqi government is formed. We expect many nations that are not currently participating in military operations will support post-war stability operations in Iraq. Consequently, the U.S. will have the opportunity to reduce the number of troops committed to Iraq after liberation is complete.

OPERATIONS IN AFGHANISTAN

16. Senator BILL NELSON. Secretary Rumsfeld, forces in Afghanistan continue to conduct dangerous combat operations. In recent weeks, U.S. forces completed the largest ground battle with al Qaeda and Taliban elements since Operation Anaconda. Are U.S. operations being hampered by the "safe haven" in the ungoverned areas of western Pakistan that al Qaeda and Taliban forces are using?

Secretary RUMSFELD. Pursuing the Taliban and al Qaeda elements in the Afghan-Pakistan border area is an important mission. The U.S. will not allow elements of the Taliban and al Qaeda operating in this area to succeed in destabilizing the newly formed Afghan government. U.S. and Coalition Forces, in close coordination with Pakistani military forces operating in western Pakistan, will continue to target those border areas harboring remnants of al Qaeda and Taliban forces. We will work closely with the Pakistani government to target and destroy the remnants of al Qaeda and Taliban forces in those areas.

17. Senator BILL NELSON. Secretary Rumsfeld, how do you see U.S. combat operations in Afghanistan evolving over the next year and do you feel the combatant commander has sufficient forces to accomplish the missions laid out by the President?

Secretary RUMSFELD. U.S. combat operations will continue to focus on targeting and destroying the remnants of terrorist forces in Afghanistan. We are also in the initial stages of increased stability operations with the deployment of Provincial Reconstruction Teams. The Commanding General of Combined Joint Task Force 180 in Bagram has sufficient forces in Afghanistan to successfully accomplish the missions laid out by the President.

SPECIAL OPERATIONS FORCES

18. Senator BILL NELSON. Secretary Rumsfeld, the President's budget includes a significant increase in funding for Special Operations Forces (SOFs). SOFs are busier than ever, but there are real limits to how big these forces can be without

compromising their quality. In future years, how do you see the Department managing the challenge of ever-increasing operational tempo for these forces with the inherently limited size of Special Operations units?

Secretary RUMSFELD. I agree with the basic thrust of this question. SOF can not be mass-produced. It is the human dimension of Special Operations Forces, not necessarily the hardware, which makes U.S. Special Operations Command (USSOCOM) such a capable command. We are therefore looking at several ways to mitigate the OPTEMPO impacts the war on terrorism has on SOF units.

The worldwide operational tempo for SOF has been significant over recent years. However, the quality of SOF personnel has remained high and the retention of seasoned professionals has consistently met readiness requirements, though its something we monitor very carefully. One reason that SOF personnel growth must be limited is that gaining the required proficiency and specialization in key SOF capabilities takes time. This limits how rapidly the force can grow.

Over the past year, we conducted a comprehensive study to review the alignment of SOFs with the defense strategy. The study underscored the need to increase the size of our SOFs in a prudent, measured fashion. The President's budget request for fiscal year 2004 includes more than 1,890 new SOF personnel, an increase of approximately 4 percent. These new personnel will be spread among the USSOCOM headquarters, its component commands, and the regional special operations commands.

We are also conducting an assessment of both SOF core and collateral missions and capabilities required for the global war on terrorism. As we transform the services, it is likely that some conventional forces could perform missions now commonly associated with SOF. If other forces become able to perform certain collateral missions, it should be possible for our SOFs to concentrate more fully on the core missions needed to win the war on terrorism.

For example, the USSOCOM and the U.S. Marine Corps are examining how SOF and U.S. Marine forces can operate together to undertake a range of contingencies that might have been done exclusively by SOF in the past. Likewise, certain "train and equip" missions combined with a more effective phasing of operations may allow SOFs to be employed earlier in an operation to set the parameters of the effort, and then be replaced by conventional forces.

19. Senator BILL NELSON. Secretary Rumsfeld, how will managing this challenge affect the global war on terrorism in the long term?

Secretary RUMSFELD. Our strategic focus initially is on disrupting, defeating, and destroying al Qaeda, with a particular emphasis on its leadership and operational planning and coordination structure. The USSOCOM is playing a key role in this effort. As the lead command for the Department's global war on terror, USSOCOM will plan and selectively execute combat missions against terrorists and terrorist organizations around the world.

This expanded operational role is in addition to the traditional role that the USSOCOM plays (i.e. providing SOFs and materiel to the various regional Combatant Commanders, who then plan and direct missions that fall within their purview).

The war against terrorism requires seamless cooperation and collaboration by the Department of Defense with many Federal agencies and departments, ranging from the Department of State and our Ambassadors overseas to the Intelligence Community, the Departments of Justice and Treasury, and others. USSOCOM has recognized this need for cross-functional coordination, and has established a planning capability that is augmented by interagency liaisons. Contingency planning will be done more rapidly than is traditionally the case since we often are dealing with fleeting targets and fragmentary intelligence. Of course, SOFs are not always the best option, or the only option. Cooperative host nation security forces, other allies, or other arms of the U.S. Government may prove better positioned to undertake key missions successfully.

Since the global war on terrorism began, we have pointed out that it is a war unlike any other war that our country has ever fought. Victory requires new ways of thinking, new ways of fighting, and a good deal of patience and fortitude. As we move forward in transforming the Department, the role of our SOFs—their missions required capabilities, and organizational structures and manning—will be a core element of attention. Their effectiveness and the retention and recruitment of others to join the ranks of our SOFs will not be jeopardized.

RESERVE FORCES

20. Senator BILL NELSON. Secretary Rumsfeld, current and future operations in the global war on terrorism are increasingly requiring mobilization of large numbers of Reserve component forces. Mobilization of these patriotic citizen-soldiers is, of course, a burden on thousands of families and communities nationwide. Looking into the future, what do you think the long-term impact of extended and frequent Reserve mobilizations will be on the strength and vitality of the Reserve Forces?

Secretary RUMSFELD. Reserve Forces are and will continue to be an indispensable part of the total military posture of the department. One of the most immediate factors affecting the long-term impact on Reserve Forces is how well mobilization and demobilization are managed. In an effort to limit disruption for reservists, their employers, families, and communities, DOD policy directed that initial orders to active duty not exceed 12 months. DOD policy also has stressed the principles of using Reserve components judiciously, considering the expectations of individual members, relying on volunteers to the maximum extent feasible, ensuring guardsmen and reservists are brought on active duty only to perform meaningful tasks and retaining them on active duty only as long as absolutely necessary. If history is a predictor of future success, the steps we have taken should mitigate any adverse impact on recruiting and retention. In fact, when reservists feel that their service is meaningful, they are more likely to remain with us.

The frequency and duration of Reserve mobilizations can be reduced through rebalancing Active and Reserve Force mix and reassigning missions to take advantage of Active and Reserve core competencies. Rebalancing the existing force mix can expand and enhance Total Force capabilities within current end strength. Changes are being considered across the full spectrum of capabilities in each component, to increase force agility, enable better management of operational tempo, and to foster closer integration between Active and Reserve components. These changes will allow the Services to lessen stress and enhance the strength and vitality of the Reserve Force.

In addition, current force management policies and systems are not as efficient or consistent with the way the force is used. Personnel management practices are being streamlined to achieve greater flexibility in accessing and managing personnel throughout a military career that may span both Active and Reserve service—or across a "continuum of service." Creating the conditions for "seamless" flow between regular and Reserve service, and providing for varying levels of part-time participation will improve efficiency of force management and provide more flexibility for recruiting and retaining a quality force.

Financial incentives, meaningful training, and proper use of our Reserve Force are required to ensure retention of trained human resources, but, first and foremost, is the need to attract quality individuals into Reserve military service. Strengthening recruiting efforts in the college market bolsters the Reserve Force through improved quality and service, given that there is a direct correlation between education levels and retention beyond the initial military enlistment.

In the future, we see the Reserves as a terrific way to bring diverse skills and experience to the military from the civil sector, that is hard to grow, train, and maintain in the regular forces. These may include medical, language, information technology and other technical skills. This will necessitate innovative affiliation programs and alternatives for accessing and retaining individuals into the Reserve components. The result can be a more cost-effective way to provide the military with cutting-edge technology and exposure to the new and innovative practices and approaches employed by industry and the private sector.

The Reserve components will continue to be a significant and cost-effective part of the Total Force, and force rebalancing and creative force management can only enhance the strength and vitality of this essential element of the military and the American society.

21. Senator BILL NELSON. Secretary Rumsfeld, in addition, is the current mobilization causing you to re-think both the size and structure of the Reserve Forces?

Secretary RUMSFELD. The current mobilization by itself does not cause the Department to re-think the size and structure of the Reserve Forces. What it does do is confirm that the strategic landscape and evolving geo-political environment, as described in many of our national security documents, requires that the U.S. possess capabilities that are responsive, agile, and able to meet these emerging challenges of the 21st century. The current mobilization also helps in gaining insight on whether the force size, structure, and mix are optimized to execute the U.S. Defense Strategy in support of the National Security Strategy.

The Department has embarked on an ambitious transformation to meet these challenges. As we continue to progress in our transformation, we are examining ways to significantly increase the value of each element of our military, to include exploration of opportunities to restructure and reorganize our force appropriately. This includes the Reserve component. In order to ensure that we progress on this path of transformation smartly, we initiated a series of analytical studies to determine what is the best force structure to support our strategy for the 21st century and what is the appropriate mix of the force in our Active and Reserve components.

The first study, which resulted from the Quadrennial Defense Review, was the "Review of Reserve Component Contributions to National Defense." This study focused on how we could best utilize our Reserve component forces in a more efficient and effective manner. Some innovative concepts derived from this study include: the establishment of what we call a "continuum of service," a personnel management process to better integrate the Active and Reserve Forces by making it easier for personnel to move back and forth between Active and Reserve service several times during a career, potentially increasing their level of participation and resulting in more engaged and longer service to the Department; increased use of volunteerism for select individuals and units to expedite the mobilization process making Reserve call-ups more responsive; and creating Reserve capabilities stateside that Combatant Commanders can utilize with reach back techniques that reduce theater footprint, deployment costs, and relieve deployment requirements and stress in some of our Reserve component forces.

The second study is the "Operational Availability Study." Directed in Defense Planning Guidance 2004, this study assesses how best to utilize future joint military capabilities and force employment timelines to execute the Defense Strategy. Emerging insights evolving from this study include recommendations of future force size, structure, and mix required to support the Defense Strategy in the 21st century.

The third study, "AC/RC Mix and Strategic Surprise" examines innovative management techniques and force structure adjustments that improve the agility and responsiveness of the Reserve components.

22. Senator BILL NELSON. Secretary Rumsfeld, are the kinds of units that are in the various Reserve components the right ones?

Secretary RUMSFELD. The demands on the Department of Defense have evolved since the end of the Cold War and appear to be increasing exponentially in the 21st century as we continue the global war on terrorism. Both Active and Reserve components are being used more frequently and in a wider variety of missions.

In the past, the Reserve components were structured as a repository for capabilities needed to meet the later phases of major theater wars. Due in a large part to the changing strategic landscape and geopolitical environment over the past years, reliance on Reserve capabilities has increased dramatically and migrated into every deployment across the spectrum of conflict. As a result, capabilities that reside predominantly in the Reserves today, such as civil affairs, port opening, Air Naval Gunfire Liaison Companies, and Combat Search and Rescue, are needed early and often, and must be mobilized quickly in a deployment. This reliance in every operation degrades the military's responsiveness, flexibility, and agility needed to support the Defense Strategy and meet the emerging challenges of the 21st century.

In that regard, the Department is finalizing two major studies that address this very issue of rebalancing the force to meet the National Security Strategy. The "Review of Reserve Component Contributions to National Defense" and the "Operational Availability Study" will recommend ways to rebalance the Total Force within current end-strength to make a more effective and judicious use of all components, not just for today but also as we transform to the future force.

SPACE ASSETS

23. Senator BILL NELSON. Secretary Rumsfeld, the recent Space Shuttle Columbia tragedy has the Nation reassessing the value of space exploration, experimentation, and operations. Many of us understand the inherent and essential military value of space as an operational medium. The President's budget for fiscal year 2004 demonstrates a significant commitment to upgrading and expanding U.S. military space assets. Could you expand on the role of space in defense transformation and how transformation in military space assets will evolve in the coming years?

Secretary RUMSFELD. It would be difficult to achieve our national security objectives without the capabilities provided by our national security space systems. For example: communications, reconnaissance, surveillance, and precision navigation

are all integral to our peacetime and crisis responsibilities and the effectiveness of our military forces. We are looking at entirely new areas and technologies that could transform our military strategies. The modernization investments we are making are to provide highly advanced space system capabilities and the science and technology investments are to provide the technologies that would allow entirely new capabilities to be developed transforming how we use space to meet our mission needs. We will be demonstrating, acquiring, and fielding these capabilities over the years to come. Some examples, not in priority order or inclusive are:

- Developing persistent intelligence, surveillance, and reconnaissance (ISR), including moving target tracking and maintaining a common operating picture of the battlefield. Space-based radar (SBR) is a key element and will provide the capability to look deeply and persistently into areas that are inaccessible to current platforms due to political restrictions, geographical constraints, or the technological limitations of legacy systems
- Developing an advanced space delivery vehicle, the Common Aero Vehicle (CAV), capable of delivering and dispensing conventional payloads worldwide from and through space within minutes of tasking with precision accuracy and an array of conventional payloads to include effectively attacking soft and hardened fixed targets, and mobile targets.
- Developing a reusable, quick-reaction launch capability to deploy small satellites required to fill short-term, focused warfighter needs in ISR and communications. Developing the capability to perform on-orbit servicing of satellites (refueling and component change out) to extend lifetimes and upgrade/fix components.
- Providing total space awareness and the ability to control all areas of space whenever necessary, including protection of vital space assets and space denial to adversaries.
- Transformational Military Satellite Communications with laser-com in conjunction with the advanced extremely high frequency (AEHF) satellites to provide greatly expanded capacity for survivable and jam-resistant communications and data throughput for global transmission to tactical joint warfighters.
- Deployment of the Space-based Infrared Satellite (SBIRS)-High is key to enabling the transformational ability to defend the United States against ballistic missile attack and significantly improve our capabilities in the four mission areas: missile warning, missile defense, technical intelligence, and battle space characterization.

24. Senator BILL NELSON. Secretary Rumsfeld, I have long argued that a national space policy that limits DOD's role in reusable launch vehicle development may need to be revisited to allow significant DOD contribution to the Space Launch Initiative. What is your position on the future of cooperation with NASA for critical common space functions such as space lift, both expendable and reusable?

Secretary RUMSFELD. The current national space policy does not preclude or limit DOD investment in reuseable launch vehicle (RLV) development—it assigns lead responsibility for expendable launch vehicle (ELV) development to DOD and lead responsibility for RLV development to NASA. I believe it is vital for DOD and NASA to coordinate research and development efforts in areas of common need.

The Department of Defense and NASA are collaborating on technologies supporting the National Aerospace Initiative (NAI) designed to overcome the barriers of high speed/hypersonic flight, space access, and space technology. NAI coordinates ongoing and new DOD investments proposed in the fiscal year 2004 President's budget request with those of NASA under the Space Launch Initiative/Next Generation Launch Technology (SLI–NGLT) program. This initiative will develop and demonstrate a portfolio of critical technologies that will enable the achievement of many common aerospace goals—such as supersonic/hypersonic capabilities; safe, affordable, launch-on-demand space access; and responsive payloads for quick deployment and employment of space capabilities—and help to ensure continued American aerospace leadership in the 21st century.

25. Senator BILL NELSON. Secretary Rumsfeld, do you anticipate using the shuttle to meet DOD and Air Force space delivery requirements in the future?

Secretary RUMSFELD. At this time, DOD and the Air Force have no plans to use the space shuttle to satisfy DOD space delivery requirements. We plan on meeting our assured access to space needs with the new EELV systems. EELV will satisfy all planned and programmed spacelift requirements, and has the flexibility and redundancy to eliminate the need for DOD to maintain the shuttle as a back up capability. The EELV is less expensive than the shuttle and eliminates the extensive

lead time for payload integration on the shuttle. The shuttle Columbia was the only orbiter capable of carrying large DOD payloads; the modifications of the other shuttles to service the International Space Station limit their payload capacity.

DOD will continue to fly small Space Test Program (STP) experiments on the shuttle as a means of getting science and technology payloads into orbit. Flying STP on the shuttle makes use of available cargo space on the shuttle at a minimal cost to DOD (approximately $3 million a year for six payloads).

NUCLEAR TESTING

26. Senator BILL NELSON. Secretary Rumsfeld, currently, the United States can perform a nuclear test within 24–36 months of receiving the applicable Presidential Decision Directive. Do you believe that nuclear-test-readiness should be shortened? What do you think is the appropriate time frame: 3 months, 6 months, a year?

Secretary RUMSFELD. Yes. Following the 1992 moratorium on underground nuclear testing, the Stockpile Stewardship Program (SSP) has dealt successfully with problems that were discovered in the stockpile. There are, however, no guarantees that it can continue to do so indefinitely. As the stockpile ages, the accumulation of modifications or the discovery of other latent problems may exceed SSP's capabilities. Should this situation arise, it may become necessary to conduct underground nuclear tests to confirm the safety or reliability of the warhead in question.

Should nuclear testing be required, we must be prepared to conduct the necessary tests in a timely fashion so that the Department of Energy's weapon laboratories can resolve a question about stockpile safety and reliability. We believe that the current 24–36 month test readiness posture is too long and must be shortened. The Department is working with the Department of Energy on an initiative directed by Congress (Fiscal Year 2003 National Defense Authorization Act, PL 107–314, § 3142) to develop plans for moving to higher levels of test readiness.

27. Senator BILL NELSON. Secretary Rumsfeld, the chairman of the Nuclear Weapons Council has established a panel to examine "the risks associated with not testing our nuclear weapons." Do you believe that there is currently a reason to be concerned with the long-term capability of stockpile stewardship? What, in particular, is the cause for concern?

Secretary RUMSFELD. To date, the experts have not raised any safety or reliability concerns that would lead me to make a recommendation to the President that the U.S. should resume testing. Since the United States conducted its last nuclear test more than 10 years ago, scientists have relied on a combination of non-nuclear experiments and computer simulations as part of the SSP to attest to the safety, security, and reliability of our nuclear weapons. There are no guarantees, however, that the Department of Energy's scientists and engineers will be able to depend on SSP indefinitely. It is prudent to be prepared and thoroughly examine the basis for confidence in the stockpile and the Nation's ability to continue to certify weapons as safe and reliable. The purpose of this panel established by the Nuclear Weapons Council is to conduct a thorough review of all aspects of our nuclear program, including test readiness.

SCOTT SPEICHER

28. Senator BILL NELSON. Secretary Rumsfeld, I'm sure you are familiar with the case of Captain Scott Speicher, who was lost over Iraq in the opening hours of the Gulf War. Is there new information on the status of Captain Scott Speicher?

Secretary RUMSFELD. We continue to receive new reporting on Captain Speicher. We thoroughly analyze and review every report for relevancy to his case.

29. Senator BILL NELSON. Secretary Rumsfeld, to your knowledge, are regional intelligence agencies in the Middle East cooperating with U.S. efforts to resolve his status?

Secretary RUMSFELD. The Intelligence Community requested intelligence information and assistance on the Captain Speicher case from numerous countries, including those in the Middle East.

TESTING OF CHEMICAL AND BIOLOGICAL WEAPONS

30. Senator BILL NELSON. Secretary Rumsfeld, I appreciate the Department of Defense's efforts to date to investigate and declassify information on the Shipboard Hazard and Defense (SHAD) and Project 112 chemical and biological testing. It is

critical that the United States come clean on this issue and that our veterans who may have been exposed to dangerous chemicals in these tests are notified so that they can seek treatment. While the full information on the location, nature, and military personnel involved in these tests has yet to come out, I believe we are making progress on this issue and I thank you for your efforts. In the coming year and in the future, when do you expect full disclosure of the SHAD/Project 112 testing programs will be complete?

Secretary RUMSFELD. The Department of Defense is committed to completing its investigation of Project 112/SHAD and releasing all medically relevant information by June 2003.

31. Senator BILL NELSON. Secretary Rumsfeld, beyond the SHAD/Project 112 disclosure program, do you support expansion of these efforts into ALL Cold War-era chemical and biological weapons testing?

Secretary RUMSFELD. If the Department of Veterans Affairs requests information from DOD necessary for adjudication of veterans' benefits claims, DOD would attempt to be responsive, to the extent feasible and consistent with continuing national security classification requirements.

32. Senator BILL NELSON. Secretary Rumsfeld, what can Congress do to assist the DOD with these efforts?

Secretary RUMSFELD. The Departments of Defense and Veterans Affairs have all the authority necessary to address these issues.

JOINT SIMULATION PROGRAM

33. Senator BILL NELSON. Secretary Rumsfeld, I have been made aware of a DOD Program Decision Memorandum (PDM) directing the cancellation of the Joint Simulation System (JSIMS) program in fiscal year 2004 and through the FYDP. I and other members on the Armed Services Committee who care deeply about the pace and scope of efforts to increase joint experimentation, joint training, creation of a standing joint operational headquarters, and joint requirements and acquisition validation, are troubled by this development.

The program is intended to provide a joint simulation capability to "integrate" service simulations allowing for joint training and experimentation at strategic, operational, and tactical levels. This kind of tool is essential to any effort to move the military establishment to greater joint training, doctrine, and experimentation.

This program has received significant congressional attention and support over the years, despite its ups and downs. There is great concern that we have abandoned the single tool essential to successful joint training and experimentation. What analysis (program management, operational requirements, etc.) informs this decision and provides the compelling justification for so dramatic and comprehensive a reduction?

Secretary RUMSFELD. The Department added significant resources on three occasions to provide full funding for the JSIMS program and keep it on schedule. In August 1999, $7.9 million was reprogrammed to ensure an Initial Operational Capability (IOC) of April 2001. In August 2000, an additional $265.5 million was allocated for fiscal year 2002–2007 to support a rescheduled IOC of March 2002. Several months later, during the budget review, a further $7.4 million increase was approved for fiscal year 2001–2002, to address shortfalls identified late in the process by the program office.

Several changes also were made to the management structure in an attempt to improve program performance and keep development on track. In December 1999, the program was given an ACAT–1D (Acquisition Category 1D) designation to increase management oversight. In January 2000, the Army was directed to appoint a full-time program manager. At the same time, the program office was instructed to produce a cost estimate, split JSIMS development into blocks, and develop appropriate acquisition documents. Although some of these measures were adopted, problems persisted. By December 2002, the official IOC date had slid to March 2005.

In addition to standard ACAT–1D oversight, there were at least four other reviews to assist program management, two of which were led by former Directors of Defense Research and Engineering. In December 1999, the Senior Review Board directed the program office to reconfigure its development plan around the Department's High-Level Architecture standard. Then, in 2001, an independent panel led by Dr. Anita Jones concluded that JSIMS needed to establish sound performance-prediction capabilities and improve its integration with its major partners, like the Army's Warfighter Simulation program. That same year, an audit conducted by the

Army Materiel Command concluded that current engineering practices would not resolve performance issues within cost and schedule constraints. Finally, in December 2002, another independent review team, this time headed by Dr. Dolores Etter, recommended looking externally for commercial technologies and strategies that support scalability in order to facilitate spiral development for future JSIMS blocks. Dr. Etter's team also recommended an independent outside assessment of the JSIMS architecture. All of these reviews, in addition to numerous ACAT–1D assessments, highlighted serious concerns about the technical and performance standards for JSIMS. The decision to conduct an Analysis of Alternatives (AoA) before proceeding with further JSIMS development is consistent with the results of these reviews.

34. Senator BILL NELSON. Secretary Rumsfeld, what alternatives are DOD/JFCOM considering to meet the requirement for a simulation tool that supports joint training, joint experimentation, and joint program evaluation?

Secretary RUMSFELD. This question will be addressed by the AoA and cannot be definitively answered before the study is complete. Final guidance is now being developed, but the AoA will likely consider the following alternatives: (1) continuing the JSIMS program, (2) separating the joint and service JSIMS elements and pursuing them as independent programs, (3) modifying existing simulations, and (4) commercial sources.

35. Senator BILL NELSON. Secretary Rumsfeld, how will DOD/JFCOM support, and who will be responsible for a new joint simulation program in the fiscal year 2004 request?

Secretary RUMSFELD. A new joint simulation is not funded in the fiscal year 2004 budget. The Department has initiated an AoA to identify the most cost-effective approach for meeting joint and service training requirements. Until the AoA is complete, we cannot say whether a new program ultimately might be needed.

36. Senator BILL NELSON. Secretary Rumsfeld, Congress appropriated millions of dollars for JSIMS and its related Service programs in fiscal year 2003, how does DOD/JFCOM propose to use that funding now that they are all (with one exception) zeroed in the fiscal year 2004 request and FYDP?

Secretary RUMSFELD. All fiscal year 2003 funds remained with the program to ensure delivery of Block I software in accordance with program office estimates. The JSIMS Software Support Facility was funded at $14 million in fiscal year 2004, using monies originally planned for the JSIMS Program Office. The remaining $168.6 million in fiscal year 2004 funding proposed in the fiscal year 2003 President's budget was allocated to other priorities.

37. Senator BILL NELSON. Secretary Rumsfeld, what is the current state of analysis and planning leading to creation of a Joint National Training Capability (JNTC)? What are the overarching challenges identified at this point to creation of a JNTC? How does cancellation of the JSIMS and related Service simulation programs contribute to the challenge or facilitate the creation of a JNTC?

Secretary RUMSFELD. The JNTC program has an approved budget, and Joint Forces Command (JFCOM) is setting up a Joint Management Office. The implementation plan, now being drafted, will define what will be required to support JNTC certification and accreditation. Fiscal year 2003 activities will include establishing and testing technical support requirements, determining opposing force capabilities, developing and testing data collection methods, and establishing and testing the exercise-control architecture. JFCOM is leading the planning for JNTC events in fiscal year 2004 and beyond.

The overarching challenge for the program is to create a solution within a high-level architecture that provides for rapid integration of live, virtual, and constructive components so that trainees are immersed in a seamless, combat-like environment, without realizing that some aspects are virtual or constructive.

JSIMS and JNTC are independent of each other, although JSIMS could be used by JNTC if it met JNTC requirements. Without JSIMS, JNTC will use legacy systems, complemented if necessary by new systems, to meet its objectives.

THE NATIONAL GUARD

38. Senator BILL NELSON. Secretary Rumsfeld, as major contributors to the force structure and capability of the U.S. Army and U.S. Air Force, the National Guard must be a part of the plan to transform our military services and the command and control of the Department of Defense. While holding the National Guard forces in

strategic reserve for the Active components may have successfully maintained a force for strategic reserve, the National Guard no longer operates only as a strategic reserve. Now, more than ever, the Army and Air National Guard are critical components of the Total Force and used in a much different manner than just 15 years ago. Such "increased reliance" upon our National Guard forces emphasizes that DOD should expand the authority of the National Guard Bureau within the Department of Defense to that of a separate entity. What is DOD doing to elevate the status of the National Guard Bureau to an independent agency status within DOD?

Secretary RUMSFELD. The Department has no plans to elevate the status of the National Guard Bureau to an independent agency. The Department of Defense has sought and continues to stress full integration of the Reserve components, with each component making up an integral piece of the parent service. Both the Army and Air National Guard are essential parts of our seven Reserve components and account for approximately 33.8 percent and 19.7 percent of their parent service respectively (combined, 36.2 percent of the two services). We will continue to work closely with the National Guard Bureau to focus our efforts on the objective of complete integration of all of our Reserve components into the Total Force.

QUESTIONS SUBMITTED BY SENATOR EVAN BAYH

NEWPORT CHEMICAL WEAPONS DEPOT

39. Senator BAYH. Secretary Rumsfeld, I am pleased to see the accelerated neutralization initiative at the Newport Chemical Weapons Depot is on schedule to be completed as early as April 2004. What specifically does the Department of Defense intend to do with the facility once demilitarization is completed?

Secretary RUMSFELD. The Army is conducting a study to ascertain reusability of the facilities. We will report our findings to Congress no later than March 31, 2003 as requested in the Senate Report 107–202 (page 20).

Note: A report was provided to Congress by the Army on March 31, 2003, and a summary of the answer to Senator Bayh's questions from that report is as follows:

All of the buildings involved with the neutralization process fall within the RCRA permit area. The chemical defense building (CDB) at Newport can not easily be fenced off from the rest of the site and excluded from this permit. As a result, the CDB is not compatible for any uses other than the demilitarization process.

A portion of the partially completed CDB structure has been enclosed from the elements, and is now being used by the demilitarization contractor to support the construction activities associated with the chemical neutralization process. Once the neutralization process starts, it is anticipated the building will be used to support the chemical demilitarization effort.

There are no current or potential Army requirements identified for any of the facilities at Newport Chemical Depot, IN, including the Chemical Demilitarization Building. The neutralization process is to run from September 2003 to May 2004. Until completion, the Army will not be able to give a full evaluation for other uses of the facilities. If any facilities remain after the decontamination/clean-up process, potential reuse by the Army or other entities will be reevaluated.

40. Senator BAYH. Secretary Rumsfeld and General Myers, I wrote to you in November 2002 seeking your assistance in strengthening temporary flight restrictions currently in place over the Nation's eight chemical weapons depots. Unfortunately, it appears as though nothing has been done to deter pilots from violating the airspace over these facilities. In the last year alone, there have been almost 50 incursions of the airspace above Newport in my home state. I would like to know what specific steps you have taken to deter such incursions? In addition, I would like to know what the Pentagon has done to coordinate efforts with the Federal Aviation Administration to enforce the flight restrictions, and to report those who violate them?

Secretary RUMSFELD. Senator Bayh, the Department of Defense shares your concern about violations of temporary flight restrictions over chemical weapons depot sites. However, DOD is not the lead Federal agency for either the establishment or the enforcement of temporary flight restrictions. If a violation occurs while we are flying a combat air patrol, DOD aircraft can intercept the offending aircraft and force it to change direction, or, in dire circumstances, shoot it down. Currently, the only option short of this is the imposition of administrative sanctions by the Federal Aviation Administration. We believe that there should be penalty options between these two extremes, and are working with other interagency members to define

what these might be and how they might be implemented, using the National Capital Region as a guide.

While DOD's actions are limited during periods of airspace violations over chemical weapons depots, the Department of Defense has taken significant steps to accelerate the chemical weapons destruction process at three of the remaining eight chemical stockpile sites. Accelerated destruction of these weapons equates to an accelerated reduction of risk to the public. The Army is implementing accelerated destruction of bulk chemical agent at the Aberdeen, Maryland and Newport, Indiana stockpiles. The Assembled Chemical Weapons Assessment (ACWA) program, under the direction of Under Secretary Aldridge, is accelerating destruction of the chemical weapons stockpile at Pueblo, Colorado.

General MYERS. The DOD shares your concern about violations of temporary flight restrictions over chemical weapons depot sites. However, DOD is not the lead Federal agency for either the establishment or the enforcement of restricted airspace. If a restricted airspace is violated, DOD can scramble alert fighter aircraft or divert fighters flying combat air patrol to intercept the offending aircraft and attempt to force it to vacate the area. If the aircraft fails to respond to direction from DOD fighter aircraft and remains a threat to the protected asset, the DOD fighters could shoot down the threat as a last resort.

The best way to keep aircraft from violating restricted airspace is through a thorough education program from the FAA, and establishment of significant penalties for violators by the FAA and law enforcement agencies. DOD continues to work with the Interagency, especially the new Department of Homeland Security, to establish security requirements and procedures to strengthen these temporary flight restrictions over sensitive areas.

BASE CLOSURES

41. Senator BAYH. Secretary Rumsfeld, I have supported your goal for a new round of base closures in 2005 and applaud your efforts to bring our military force in line with our infrastructure. Looking ahead to the base closure and realignment process, and recognizing the Department's emphasis on joint service training and response, I would think that multiple service support in our shore establishment is critical from both a capability as well as an efficiency standpoint. Do you plan to include base closure criteria in the process that considers joint service support, and rewards those activities? In addition, as we examine the vital role that DOD plays in securing the homeland, will homeland defense capability be included in the base closure and realignment criteria?

Secretary RUMSFELD. Section 2913(b) of the BRAC statute requires me to ensure that military value is the primary consideration in the making of closure and realignment recommendations. The statute further provides that military value shall include at a minimum the preservation of military installations in the United States as staging areas for the use of the Armed Forces in homeland defense missions. Consistent with these statutory requirements, I will make specific recommendations for military value selection criteria when I publish the selection criteria for public comment, no later than December 31, 2003.

42. Senator BAYH. Secretary Rumsfeld, I would like to know how, or if, September 11 has changed your thinking about the location and distribution of our military bases and installations in the United States?

Secretary RUMSFELD. The events of September 11, 2001, have confirmed in my mind that the Department must act now to review our basing requirements. We are looking at and experiencing different threats than we were a decade ago, and our forces must be stationed appropriately to respond to contingencies and support the global war on terrorism.

TRANSFORMATION

43. Senator BAYH. Secretary Rumsfeld, it is my understanding that you are proposing to terminate the M1A1 Abrams main battle tank and the M–113 family of armored vehicles. I am concerned about this decision and believe these time proven and effective systems have a critical role in the transformed Armed Forces. Of particular concern to me is how you will maintain these systems in outyears. Specifically, can you tell in detail how you will provide for transmission replacement and maintenance of these vehicles?

Secretary RUMSFELD. The program the Department plans to terminate is the M1A2 System Enhancement Program (SEP) Retrofit Program. The M1A1 Abrams

Integrated Maintenance (AIM) program continues. This program remains effectively the same as planned in the Army's original recapitalization of the legacy force and modernization strategy. The AIM program will refurbish 790 M1A1 tanks at a planned rate of 135 tanks per year from fiscal year 2002 through fiscal year 2006 and 115 tanks in fiscal year 2007. Anniston Army Depot in Alabama, Lima Army Tank Plant in Ohio, and General Dynamics Land Systems Division, will perform the work. The M1A1 incorporates rebuilt, service life extension AGT 1500 engines, and selected subsystem improvements. To control costs, the AIM program plans to provide the transmission replacement and maintenance on these vehicles using existing stocks, to develop innovative repair and rebuild programs, to use excess vehicle line replaceable units, and to re-engineer components that are no longer procurable.

The M113 Family of Vehicles system upgrade program is effectively terminated in fiscal year 2004. The remaining M113 work is the conversion of 77 M577A2s to M1068A3s (a conversion from an older to the new command post carrier variant of the M113), the incorporation of government-furnished equipment transmissions, and 476 sets of track for 1st Cavalry Division M113s.

[Whereupon, at 12:28 p.m., the committee adjourned.]

DEPARTMENT OF DEFENSE AUTHORIZATION FOR APPROPRIATIONS FOR FISCAL YEAR 2004

TUESDAY, FEBRUARY 25, 2003

U.S. SENATE,
COMMITTEE ON ARMED SERVICES,
Washington, DC.

SERVICE CHIEFS

The committee met, pursuant to notice, at 9:35 a.m. in room SD–106, Dirksen Senate Office Building, Senator John Warner (chairman) presiding.

Committee members present: Senators Warner, McCain, Inhofe, Roberts, Allard, Sessions, Collins, Ensign, Talent, Chambliss, Dole, Cornyn, Levin, Kennedy, Reed, Bill Nelson, Dayton, Clinton, and Pryor.

Committee staff members present: Judith A. Ansley, staff director; Marie Fabrizio Dickinson, chief clerk; and Gabriella Eisen, nominations clerk.

Majority staff members present: Brian R. Green, professional staff member; William C. Greenwalt, professional staff member; Mary Alice A. Hayward, professional staff member; Ambrose R. Hock, professional staff member; Gregory T. Kiley, professional staff member; Patricia L. Lewis, professional staff member; Thomas L. MacKenzie, professional staff member; Ann M. Mittermeyer, counsel; Lucian L. Niemeyer, professional staff member; Lynn F. Rusten, professional staff member; Joseph T. Sixeas, professional staff member; Scott W. Stucky, general counsel; and Richard F. Walsh, counsel.

Minority staff members present: Richard D. DeBobes, Democratic staff director; Daniel J. Cox, Jr., professional staff member; Kenneth M. Crosswait, professional staff member; Richard W. Fieldhouse, professional staff member; Creighton Greene, professional staff member; Maren R. Leed, professional staff member; Gerald J. Leeling, minority counsel; Peter K. Levine, minority counsel; and Bridget M. Whalan, special assistant.

Staff assistants present: Andrew Kent, Sara R. Mareno, and Nicholas W. West.

Committee members' assistants present: Cord Sterling, assistant to Senator Warner; Dan Twining, assistant to Senator McCain; James Beauchamp, assistant to Senator Roberts; Jayson Roehl, assistant to Senator Allard; Arch Galloway II, assistant to Senator Sessions; James P. Dohoney, Jr., assistant to Senator Collins;

James W. Irwin, assistant to Senator Chambliss; Henry J. Steenstra, assistant to Senator Dole; Mieke Y. Eoyang, assistant to Senator Kennedy; Terrence E. Sauvain and Erik Raven, assistants to Senator Byrd; Elizabeth King, assistant to Senator Reed; William K. Sutey and Peter A. Contostavlos, assistants to Senator Bill Nelson; Andrew Shapiro, assistant to Senator Clinton; and Randy Massanelli, assistant to Senator Pryor.

OPENING STATEMENT OF SENATOR JOHN WARNER, CHAIRMAN

Chairman WARNER. Good morning, everyone. The committee meets this morning to receive testimony from the chiefs of the military services in their annual posture statement on behalf of their respective branches to our committee. This is in regard to the President's fiscal year 2004 defense budget.

Each of you bring great distinction to your Services and we are proud to have you here today. Last week, Senator Levin, Senator Roberts, Senator Rockefeller, and I had the privilege of visiting with U.S. military personnel in the Persian Gulf region, Afghanistan, and Pakistan. I say to you most respectfully and humbly, you have rightful pride in your men and women in the Armed Forces.

We met with them at each stop last week, and they are the best, well-trained force to be found anywhere in the world today.

We arose this morning to hear about the diplomatic efforts which are properly being pursued by our President and other world leaders in this problem with regard to Iraq. But that diplomacy begins with the men and women in uniform of the United States and other nations that are trying to secure peace in that part of the world and the elimination of weapons of mass destruction from Saddam Hussein and his regime.

We would not see the diplomacy working at its hopefully best, be it in the Security Council or in the capitals of the world, had it not been for the foresight of our President and other world leaders to move in position their best and finest of the Armed Forces to make possible such progress that we all hope and pray for in diplomacy.

That reflects directly upon each of you individually and those of you in your respective branches who made possible these fine, trained soldiers, sailors, airmen, and marines.

Each year we have this hearing, but today it is a most important one. The honest and forthright observations of the Service Chiefs, professional as well as personal, are absolutely essential for the continuing work of this committee and the work of the Senate as a body at such times as we bring forth the bill and, indeed, the nominations that are frequently before the Senate with regard to the men and women of the Armed Forces.

Time and time again, you and your predecessors have summoned the courage to point out the challenges to current and future readiness. Those of us who have been on this committee for many years, as Senator Levin and I have, can recall predecessors who have been in your positions whose forthright testimony has enabled this committee to give greater support to the men and women of the Armed Forces, and we are respectful of what you do to make that possible.

Together you represent more than 120 years of military experience and distinguished service to the Nation. Individually, your understanding of what is required to organize, equip, train, and sustain your service in peacetime and in wartime is second to none.

When General Myers testified before the committee 2 weeks ago, I asked him this question. I asked him whether he believed the Armed Forces were prepared to meet any contingency of the use of force as may be required in Iraq and continue their high level of activity against worldwide terrorism. His response was unhesitating. His response was succinct, one word: "Absolutely."

I and many others who have pondered the question over the past several months were assured by his confidence and his certainty. Clearly, much of your work and opinions contributed to the conclusion of the Chairman of the Joint Chiefs of Staff.

Today, homeland security is our Nation's foremost urgent priority. As Senator Levin and I met with the troops in these far-most regions, we said to them that homeland defense begins right where they are, because to the extent they can deter, interdict, or if necessary, crush terrorists is the extent to which there is less chance that that terrorism is brought to the shores of our country against their families, against all of us here at home. Homeland defense begins beyond the shores of this Nation.

As we meet this morning, our Armed Forces are fighting the war with terror with over 40 coalition partners from Afghanistan to the Philippines. In the case of Iraq, our President has quite properly, together with other world leaders, chosen the diplomatic path, working through the United Nations and the Security Council. But as I said earlier, we must ever be mindful that diplomacy can only be as effective as there is a clear and present credible military threat to use force to back up that diplomacy. Your troops are doing exactly that.

The President's fiscal year 2004 defense budget request of $379.9 billion continues to increase in real terms the amount of funding available for each of the Services in total. This budget continues the President's considerable progress to date and continues his ongoing commitment to safeguard America, our allies, and our friends. It is increasingly clear, however, that today's global challenges are requiring much more of the Armed Forces.

It is our responsibility on this committee, and Congress as a whole, to carefully monitor the degree to which these increase demands stress the overall readiness of the forces, the readiness of the individual service person, and the readiness of their families. We encountered on this trip some areas that we will bring to your attention this morning, areas in which we have concern, in all probability you have concern, and we need to know your recommendations how we can jointly work with you to correct it.

As we discuss and debate this budget request in the days and weeks ahead, as is the duty of this committee and Congress, on one thing we can all agree: the commitment, the dedication, and performance of the soldiers, sailors, airmen, and marines in service to their Nation and that of their families in homeland defense is truly a remarkable blessing on this Nation. I thank you.

Senator Levin.

STATEMENT OF SENATOR CARL LEVIN

Senator LEVIN. I thank you, Mr. Chairman.

As we meet and as our troops continue to flow towards the Iraq region, there are many issues relative to Iraq that are being debated here at home, around the world, and at the United Nations. It is appropriate that those issues be debated, including the question of whether or not it would be wise to initiate an attack against Iraq without the support of the world community acting through the United Nations, the fallout of such an attack long-term and short-term, what the alternatives are in terms of disarming or containing Saddam Hussein, and whether the world will be more or less secure if such an attack takes place without a unified world community speaking through the United Nations.

There are many issues that are worthy of debate. But one thing is clear to me, that if in fact such an attack occurs, the short-term military outcome is not in doubt. I also believe very firmly that the Iraqi leaders should not infer from these debates that America will not be united in support of its forces in the field. Regardless of where we stand on the issues being debated, this country will be united if and when the time comes. We will provide our men and women in uniform with everything that they need to ensure that they prevail.

As Senator Warner has mentioned, Senator Roberts, Senator Rockefeller, the chairman, and I just returned from the region. There was no doubt in our mind before we left that our military is by far the best-trained, best-equipped, and most capable fighting force in the world today, and nothing that we saw on our trip in any way raises any uncertainty about that conclusion.

But our visit reassured us that there is a uniformly high state of morale among our forces and a willingness to implement orders from the Commander in Chief, whatever those orders may be. Their readiness can be attributed in significant measure to the hard work that the Service Chiefs and their staffs have put forward in support of their responsibilities, and we give to our Service Chiefs for that our heartfelt thanks for your efforts.

But I think you would be the first to join us and all the members of this committee in saying that the real gratitude is owing to the men and women who serve in the Armed Forces.

I want to join our chairman in welcoming our witnesses here today. First, I want to extend a special thanks to General Shinseki, who is making his final appearance before the committee at a posture hearing. I do not think we can give you any assurance it will be your last appearance before the committee, however, so do not relax too much.

Let me put this simply, though. Today our tribute will come more fully at a later time, but let me just simply say that you, sir, are the embodiment of service to our Nation and a commitment to the men and women whom you command. You have been truly a role model and we salute you for it.

I also want to give a special welcome to General Hagee, who is making, I believe, his first appearance at a posture hearing, and we welcome you as well as our other witnesses who have been here before and will be here again. All of you are very much in our thoughts these days. We are grateful to you for what you have done

to prepare our troops should war come, and that service will indeed serve them and our Nation well should in fact that moment arrive.

Thank you, Mr. Chairman.

Chairman WARNER. Thank you, Senator Levin.

We will have 6-minute rounds. But before I proceed, I join Senator Levin in acknowledging your service, General Shinseki. There are moments in one's life that you never forget, and I recall Senator Inouye introducing you to this committee and I never have heard a more eloquent, more heartfelt introduction than that given by our distinguished senior colleague. You have lived up in every way to what he said. Thank you, sir.

All right, I will start off, ladies and gentlemen, just as soon as we get organized up here. But we will start with the opening statements. We will start with you, General.

STATEMENT OF GEN. ERIC K. SHINSEKI, USA, CHIEF OF STAFF, UNITED STATES ARMY

General SHINSEKI. Thank you, Mr. Chairman, both you and Senator Levin, for the kind comments. That moment that you recollect was a high point as well, as has been the last 3½ years of my opportunity to work with the members of the committee. I will always consider that a high point.

Mr. Chairman, Senator Levin, other distinguished members of the committee: I am honored to be here this morning with the Service Chiefs and reporting to you on the posture of the Army and its readiness. Today, as both the chairman and the ranking member have indicated, across the joint force, soldiers are serving magnificently alongside their joint brethren, defending our freedom in this world against terrorism and preparing for other contingencies. In the Army alone, nearly 220,000 soldiers are forward stationed overseas and more than 124,000 of our Reserve component have been mobilized to this point.

In the past 6 months, I have visited a good many of them. I have stood on the ground with them on their operational deployments. I have talked with them where they worked, where they played, and where they ate. I have even visited them here at Walter Reed Army Medical Center. We have had candid and frank discussions about your Army's readiness to respond to the Nation's calls.

The Army is ready. We have the best Army in the world, not the largest but the best-led, best-trained, and best-equipped. It is about more than just equipment. We have the best soldiers on top of everything. Their determination and commitment are as firm as I have seen in my years of service and they are immensely proud to serve this Nation. They will take any objective, and they will accomplish any mission that we send them on.

I am proud of what I have seen and I am daily reassured of my assessment. Soldiers are standing by for orders in 100 camps and stations and they will fight and win decisively this war on terrorism or any other war we might be sent to fight.

We want to project that degree of readiness that is reflected today, project that readiness into the future, and to do so we long decided we must have a more responsive, a more deployable, more agile and versatile, as equally lethal and survivable a force as we have today. We began that work about 3½ years ago.

We knew then that there was a war in our future. We just did not know when, where, or against whom. The relative predictability all of us had gotten used to during the Cold War had given way to a continuing chaos of unpredictability. Voices inside and outside the Army suggested change.

With the unwavering support of the administration and this Congress, we are transforming rapidly to be more capable of dominating future crises. To mitigate the risk that is always inherent any time an institution undertakes comprehensive and fundamental change, we structured that transformation along three broad, mutually supporting vectors.

On the near-term axis, we committed to keeping the readiness of today's legacy combat formations at the appropriate level. Then, to fix longstanding operational gaps we have had between our heavy and light components of that legacy force, we are fielding six Stryker Brigade Combat Teams to give us added capabilities in that midterm axis, even as we are designing our future force capabilities.

Then finally, it is on that third and final axis that we are readying the Army for its long-term responsibilities. We are developing future concepts and technologies that will provide consistent capability overmatch through the middle of the century. Our Milestone B Defense Acquisition Board decision that is coming up in May of this year is the next major milestone and we intend to begin fielding this Objective Force by 2008.

Balancing these requirements over time dictates difficult but prudent funding decisions and the Army's fiscal year 2004 budget strikes that essential balance to maintain readiness throughout the Program Objective Memorandum (POM) period and beyond, and your support remains essential.

We are already seeing dividends from our investments in future readiness: technologies that are coming on line early, superior body armor today, robots in caves, antitank warheads on unmanned aerial vehicles today, and unprecedented Blue Force tracking capabilities today. During the largest joint exercise in our history, Millennium Challenge 2002, with the help of the Air Force we air-delivered a Stryker platoon onto a dirt strip out at the National Training Center, Fort Irwin, California.

Just 3 years after the Army described its requirement for this interim force, we are demonstrating the increased strategic, operational, and tactical capabilities the Stryker Brigade Combat Teams will provide to combatant commanders. This summer the first Stryker Brigade Combat Team will join us in the war on terrorism.

So it is not just about capabilities in 2008 and beyond. It is enabling soldiers today.

People remain the engine behind all of our magnificent moments as an Army and their well-being is inextricably linked to our readiness as we describe it today. My thanks to the members of this committee for your help with pay raises, health care, retirement benefits, housing, and other well-being programs that have taken better care of our people than I can remember. Our soldiers, civilians, retirees, and veterans and their families appreciate it in more ways than I can describe.

Mr. Chairman, we are grateful for your unwavering support, unwavering bipartisan support of this committee, and the leadership of this committee and its devotion to our soldiers. You keep us the most respected land force in the world. Mr. Chairman, thank you, and I look forward to your questions and the questions of the committee.

[The prepared statement of General Shinseki and the Army Posture Statement follow:]

PREPARED STATEMENT BY GEN. ERIC K. SHINSEKI, USA

Mr. Chairman and distinguished members of the committee, thank you for this opportunity to report to you today on the posture of the United States Army.

America's Armed Forces are the most powerful in the world. America's Army remains the most respected landpower to our friends and allies and the most feared ground force to those who would threaten the interests of the United States.

Since before the birth of the Nation, American soldiers have instilled hope in a noble dream of liberty. They have remained on point for the Nation through nine wars, and the intervals of peace in the years between—defending the Constitution and preserving freedom. Magnificent in their selfless service, long in their sense of duty, and deep in their commitment to honor, soldiers have kept the United States the land of the free and the home of the brave. This is our legacy. Our soldiers who serve today preserve it.

In October 1999, we unveiled our vision for the future—"Soldiers, on point for the Nation, transforming this, the most respected army in the world, into a strategically responsive force that is dominant across the full spectrum of operations." The attacks against our Nation on September 11, 2001, and the ensuing war on terrorism validate the Army's vision—people, readiness, transformation—and our efforts to change quickly into a more responsive, deployable, agile, versatile, lethal, survivable, and sustainable force.

While helping to fight the global war on terrorism, the Army is in the midst of a profound transformation. Readiness remains our constant imperative—today, tomorrow, and the day after. Transformation, therefore, advances on three broad axes: perpetuating the Army's legacy by maintaining today's readiness and dominance; bridging the operational gap with an Interim Force of Stryker Brigade Combat Teams; and fielding the Objective Force to fight and win conflicts in the years beyond this decade.

As they have throughout the Army's 227-year history, soldiers remain the centerpiece of our formations. Versatile and decisive across the full spectrum of joint missions, land forces have demonstrated time and again the quality of their precision in joint operations. Our responsibility is to provide soldiers with the critical capabilities needed for the tough missions we send them on.

After 3½ years of undiminished support from the administration and Congress, and the incredible dedication of soldiers and Department of the Army civilians, we have begun to deliver the Army vision. With continued strong support, we will win the war against global terrorism, meet our obligations to our friends and allies, remain ready to prevail over the unpredictable, and transform ourselves for decisive victories on future battlefields.

We have achieved sustainable momentum in Army transformation; the framework is in place to see the Objective Force fielded, this decade.

THE ARMY—AT WAR AND TRANSFORMING

The United States is at war, and the Army serves the Nation by defending the Constitution and our way of life. It is our nonnegotiable contract with the American people—to fight and win our Nation's wars, decisively.

In the weeks immediately following the attacks of September 11, 2001, Special Operations Forces (SOF) infiltrated Afghanistan, penetrated al Qaida and Taliban strongholds, and leveraged all available long-range, joint fires, enabling the Northern Alliance to begin dismantling the Taliban. By January 2002, U.S. and Allied conventional force reinforcements began to set the stage for Operation Anaconda, where soldiers, demonstrating courage and determination under the most challenging conditions, defeated al Qaida at altitude on the escarpments overlooking the Shah-e-kot Valley.

Today, more than 198,000 soldiers remain deployed and forward stationed in 120 countries around the globe, conducting operations and training with our friends and allies. Decisively engaged in the joint and combined fight against global terrorism,

soldiers are serving with distinction—at home and abroad. Soldiers from both the active and the Reserve component have remained "on point" for the Nation in the Balkans for 7 years, in Saudi Arabia and Kuwait for 12 years, in the Sinai for 21 years, and in Korea and Europe for over 50 years. At the publication of the Army Posture Statement, there were more than 110,000 Reserve component soldiers mobilized for active Federal service in support of Operation Noble Eagle and Operation Enduring Freedom. Even as we transform, soldiers will remain ready to answer the calls of the Nation to defeat well-trained, determined, and dangerous adversaries who miscalculate in taking on the best-led, the best-equipped, and the best-trained Army in the world.

At war and transforming, the Army is accelerating change to harness the power of new technologies, different organizations, and revitalized leader development initiatives to remain at the head of the line. To accomplish this, Army transformation advances along three major axes towards attainment of the Objective Force. We selectively recapitalize and modernize today's capabilities to extend our overmatch in staying ready to defend our homeland, keep the peace in areas important to the Nation, and win the war against global terrorism. Stryker Brigade Combat Teams—our Interim Force—will bridge the current operational gap between our rapidly-deployable light forces and our later-arriving heavy forces, paving the way for the arrival of the Objective Force. By 2010, the Army's Objective Force—organized, equipped, and trained for ground dominance, cyber-warfare, and space exploitation—will provide the Nation the capabilities it must have to remain the global leader, the strongest economy in the world, and the most respected and feared military force, by our friends and allies and our enemies, respectively.

The surprise attacks against our Nation and Operation Enduring Freedom, in response to those attacks, validated the Army vision and provided momentum to our efforts to transform ourselves into an instrument of national power that provides full spectrum operational capabilities that are strategically responsive and capable of decisive victory. In a little over 3 years, we have begun to realize the Army vision—people, readiness, and transformation.

The transforming Army is enriching as a profession and nurturing to families whose sacrifice has borne the readiness of the force for the past 10 years. Our well-being initiatives are our commitment to reverse this trend by giving our people the opportunity to become self-reliant; setting them up for personal growth and success; aggressively investing in family housing; and revitalizing single-soldier living space in our barracks. Our manning initiatives have filled our line divisions and other early deploying units to dampen the internal turbulence of partially filled formations and help put a measure of predictability back into the lives of our families.

The Army has carefully balanced the risk between remaining ready for today's challenges and preparing for future crises. With unwavering support from the administration, Congress, our soldiers, and Department of the Army civilians, the Army has made unprecedented progress in its efforts to transform.

We will achieve Initial Operating Capability (IOC) for the first Stryker Brigade Combat Team (SBCT) this summer and demonstrate the increased responsiveness, deployability, agility, verastility, lethality, survivability, and sustainability that SBCTs provide to combatant commanders. In a little over 3 years from initial concept to fielded capability, the SBCTs will allow us to glimpse the potential for acquisition reform in paving the way for delivery of the Objective Force.

We have constructed the framework for achieving the Objective Force this decade: a Transformation Campaign Plan with Roadmap; the Objective Force White Paper; the Operational and Organizational plans for the Objective Force Unit of Action; and the Operational Requirements Document for the Future Combat System of Systems.

Additionally, the Army is poised to fill ground maneuver's most critical battlefield deficiency—armed aerial reconnaissance—with Comanche, a capable, survivable, and sustainable aircraft that is a cornerstone of the Objective Force.

All along the way, we have tested our concepts in wargames and experiments, checked and rechecked our azimuth to the Objective Force weekly and monthly, and look forward to a successful Future Combat System Milestone B Defense Acquisition Board decision in May of this year.

However, we cannot accelerate Army transformation without transforming the way the Army does business—from transformation of logistics and acquisition to personnel and installation transformation. Revolutionizing Army business management practices achieves the best value for taxpayers' dollars; conserves limited resources for investment in people, readiness, and transformation; enhances management of personnel systems, installations, and contracting; and augments our potential to accelerate arrival of the Objective Force. Changing the Army is first about

changing the way we think, and better business practices represent practical application of common sense initiatives that best serve the Army and our Nation.

We are proud of our progress. We are grateful for the strong congressional support that has helped put the Army on its approach march to the Objective Force. The Army 2003 Posture Statement describes our tremendous progress in transformation—an orchestrated campaign, synchronized with OSD and joint transformation, to achieve the Objective Force and keep America's Army the dominant landpower in the world.

THE STRATEGIC ENVIRONMENT—THE REQUIREMENT TO TRANSFORM

During the last two decades of the 20th century, information-age technologies dramatically changed the political, economic, and military landscapes. Operation Desert Shield, Operation Desert Storm, and operations in Kuwait, Bosnia, and Kosovo illustrated the requirement for transforming our forces to meet the evolving, strategic requirements of our Nation. Survivable and extremely lethal, our heavy forces effectively met the requirements for which they were designed; yet, they were slow to deploy and difficult to sustain. Conversely, our light forces were rapidly deployable, but they lacked the protection, lethality, and tactical mobility that we seek across the spectrum of military operations. We were successful in winning the Cold War and, as a result, smaller than we had been in 40 years. The Army no longer had the luxury of specialized forces built to confront a single and narrowly defined threat like the Warsaw Pact countries.

Today's challenges are more complex; threats are elusive and unpredictable. The fight against international terrorism has overshadowed, but not eliminated, other potential crises. Tension between India and Pakistan persists; stability between China and Taiwan is tenuous; and concern over North Korea escalates. Threats of transnational terrorism and the proliferation of weapons of mass destruction (WMD)—often financed by organized crime, illicit drug transactions, trafficking in women and children, and the sale of arms—further complicate the security environment. Geopolitical trends such as scarce resources, youth population-spike in underdeveloped countries, aging populations in developed countries, and the growth of mega-cities, among others, presage a future strategic environment of diverse and widely distributed threats.

Fully appreciating the internal and external difficulties that profound change engenders, we assessed the operational challenges of the new century against the capabilities of our Cold War Army, recognized the opportunity to leverage the inherent combat power of the technological revolution, and set a clear path ahead—the Army vision.

The 2002 National Security Strategy (NSS) reaffirms our military's highest priority—defending the United States. To do this effectively, we assure our allies and friends; dissuade future military competition; deter threats against U.S. interests, allies, and friends; and decisively defeat any adversary, if deterrence fails. The NSS directs the military to transform to a capabilities-based force ready to respond to unpredictable adversaries and security crises. The Objective Force meets these NSS requirements, and Army transformation will enhance our ability to conduct rapid and precise operations, achieve decisive results at the time and place of our choosing, and safeguard the Nation's ability to exercise our right of self-defense through preemption, when required.

The 2001 Quadrennial Defense Review describes a capabilities-based approach to defense planning that provides broader military options across the operational spectrum, from pre- to post-conflict operations. The force-sizing construct—1–4–2–1—takes into account the number, scope, and simultaneity of tasks assigned the military: it sizes the force for defense of the U.S. homeland (1), forward deterrence in four critical regions (4), the conduct of simultaneous warfighting missions in two regions (2)—while preserving the President's option to call for decisive victory in one of those conflicts (1)—and participation in multiple, smaller contingency operations.

THE ARMY—SERVING TODAY, BALANCING RISK, MANAGING TRANSFORMATION

Soldiers are the most precise and responsive means to strike and then control enemy centers of gravity on the ground—where people live, work, and govern. American soldiers are disciplined, professional, and trained for success in diverse missions; they are the foundation of a flexible force that accomplishes its missions in the non-linear battlespace by integrating new, innovative technologies and techniques with current systems and doctrine. Our people adapt under the harshest conditions, whether in the deserts of Kuwait and the Sinai, the mountains and rice paddies of Korea, or the tropics of the Democratic Republic of Timor-Leste.

These demanding commitments mean we must nurture a balance between current and near-term readiness and our transformation to meet future challenges. The Army has accepted reasonable operational risk in the mid-term in order to fund our transformation to the Objective Force. To avoid unacceptable risk, we are monitoring closely the current operational situation as we support the combatant commanders in the war against terror, conduct homeland defense, and prosecute the long-term effort to defeat transnational threats. We have designed and implemented the Strategic Readiness System (SRS) to provide a precision, predictive tool with which to monitor the Army and make appropriate adjustments to preserve current readiness. Our surge capacity in the industrial base further reduces current risk by keeping production lines warm and responsive. Our first Stryker Brigade Combat Team will provide the combatant commanders with a new capability to further mitigate operational risk—even as we transform to the Objective Force.

REALIZING THE ARMY VISION—PEOPLE, READINESS, AND TRANSFORMATION

In 1999, the Army announced its vision to transform into a more strategically responsive force, dominant across the full spectrum of military operations. The Army vision addresses three essential components: people, readiness, and transformation. Soldiers are the heart of the Army, the centerpiece of our formations, and the foundation of our combat power. Readiness remains our overarching imperative; it is the means by which we execute our nonnegotiable contract with the American people—to fight and win our Nation's wars, decisively. To preserve readiness while rapidly changing, transformation advances on three major axes: preserving our Army legacy by maintaining readiness and dominance today; bridging the operational gap with Stryker Brigades, the Interim Force; and fielding the Objective Force this decade to keep the Army dominant in the years beyond this decade.

Realizing the Army vision requires the concerted effort of the entire Army, across all components—from warfighting to institutional support organizations. The Army published its Transformation Campaign Plan in April 2001 to synchronize and guide this complex undertaking. The November 2001 Objective Force White Paper describes the advanced capabilities and core technologies needed to build the Objective Force. The Army's June 2002 Army transformation Roadmap defines transformation as a continuous process—with specific waypoints—that increases our contributions to the Joint Force while achieving the six Department of Defense (DOD) critical operational goals. The result will be a more strategically responsive and full spectrum dominant force capable of prompt and sustained land combat operations as a member of the Joint Force.

In support of the emerging joint operational concepts and architectures, the Army—as the major landpower component—continues to develop ground concepts for a full spectrum and multidimensional force. These concepts are producing a Joint Force that presents potential enemies with multiple dilemmas across the operational dimensions—complicating their plans, dividing their focus, and increasing their chances of miscalculation.

In future joint operations, Objective Force units will be capable of directing major operations and decisive land campaigns with Army headquarters. Objective Force headquarters at all levels will provide the Joint Force Commander (JFC) with seamless, joint battle command and decision superiority. The modularity and scalability of our Objective Force formations will provide an unprecedented degree of flexibility and adaptability to the combatant commander—providing the right force at the right time for decisive outcomes.

PEOPLE—OUR MOST VALUABLE RESOURCE

The Army vision begins and ends talking about people. People are central to everything else we do in the Army. Platforms and organizations do not defend this Nation; people do. Units do not train, stay ready, grow and develop leadership—they do not sacrifice and take risks on behalf of the Nation. People do. Institutions do not transform; people do. People remain the engine behind all of our magnificent moments as an Army, and the well-being of our people—the human dimension of our transformation—is inextricably linked to Army readiness.

In our vision, we recommitted ourselves to doing two things well each and every day—training soldiers and civilians and growing them into competent, confident, disciplined, and adaptive leaders who succeed in situations of great uncertainty. We are dedicated to preparing our soldiers to lead joint formations, to enabling our headquarters to command and control joint forces, and to providing to those joint formations the capabilities only the Army can bring to the fight: the ability to control terrain and populations.

Manning the Force

The objective of our manning strategy is to ensure we have the right people in the right places to fully capitalize on their warfighting expertise—this is the Army's commitment to the Nation, Army leaders, soldiers, and our families. Correctly manning our units is vital to assuring that we fulfill our missions as a strategic element of national policy; it enhances predictability for our people; and it ensures that leaders have the people necessary to perform their assigned tasks. In fiscal year 2000, we implemented a strategy to man our forces to 100 percent of authorized strength, starting with divisional combat units. The program expanded in fiscal year 2001 and fiscal year 2002 to include early deploying units. In fiscal year 2002, we maintained our manning goals and continued to fill our divisions, Armored Cavalry Regiments, and selected early deploying units to 100 percent in the aggregate, with a 93 to 95 percent skill and grade-band match. We remain on target to accomplish our long-term goal of filling all Army units to 100 percent of authorized strength.

RECRUITING AND RETAINING THE FORCE

In 1999, the Army missed its recruiting goals for the active component (AC) by about 6,300 inductees, and for the Reserve component by some 10,000. Our recruiting situation was simply unacceptable, and we committed ourselves to decisive steps and reversed that trend.

In fiscal year 2002, the AC achieved 100 percent of its goal in recruiting and retention for the third consecutive year. The Army exceeded its AC 79,500 enlisted accession target in fiscal year 2002 and exceeded our aggregate fiscal year 2002 retention objective of 56,800 soldiers in all three categories by 1,437. We are poised to make the fiscal year 2003 accession target of 73,800, and we expect to meet our active component fiscal year 2003 retention target of 57,000. The fiscal year 2004 accession target is set at 71,500.

The Army Reserve has met mission for the last 2 years, and its recruiting force is well structured to meet fiscal year 2004 challenges. The Army Reserve continues to maintain a strong selected Reserve strength posture at 205,484 as of January 17, 2003—over 100.2 percent of the fiscal year 2003 End Strength Objective. Overcoming many recruiting and retention challenges in fiscal year 2002, the Army National Guard (ARNG) exceeded end strength mission, accessions were 104.5 percent of goal, and we exceeded reenlistment objectives.

To ensure that we continue to recruit and retain sufficient numbers, we are monitoring the current environment—the global war on terrorism (GWOT) and frequent deployments—to determine impact on morale, unit cohesiveness, combat effectiveness, and support of well-being programs that draw quality people to the Army. We continue to examine innovative recruiting and retention initiatives. The challenges we face in fiscal year 2003 and 2004 are two-fold: increase recruiter productivity and recruiting resources necessary to maintain recruiting momentum when the economy becomes more robust. Resourcing recruiting pays dividends well beyond accessions in the year of execution. For example, Army advertising in fiscal year 2002 influenced not only fiscal year 2002 accessions, but also potential recruits who will be faced with enlistment decisions in fiscal year 2003 and beyond.

RESERVE COMPONENT FULL-TIME SUPPORT (FTS)

Today, more than 50 percent of our soldiers are in the Reserve component (RC). The GWOT and homeland defense are significant undertakings that demand a high level of resourcing. The RC has been key to our success in these operations. To ensure the Army's RC continues to meet ever-increasing demands with trained and ready units, the Army plans to increase full-time support authorizations 2 percent each year through fiscal year 2012, increasing the FTS from the current level of 69,915 to a level of 83,046. The Army recognizes additional full-time support authorizations as the number one priority of the Army National Guard and Army Reserve leadership.

CIVILIAN COMPONENT

As a comprehensive effort to consolidate, streamline, and more effectively manage the force, the Army has begun an initiative to transform our civilian personnel system. High quality, well-trained civilians are absolutely essential to the readiness of our force and our ability to sustain operations today and in the future. Recruiting, training, and retaining a highly-skilled, dedicated civilian workforce is critical in meeting our obligations to the combatant commanders and the Nation. Aggressive transformation of our civilian force—in which projections through fiscal year 2005

indicate a 16-percent annual turnover due to retirements and other losses—will ensure we continue to meet those obligations.

As of fiscal year 2002, the Army employed 277,786 civilian personnel. To forecast future civilian workforce needs with precision, we developed the Civilian Forecasting System, a sophisticated projection model that predicts future civilian personnel requirements under various scenarios. The Army is working closely with the Office of the Secretary of Defense (OSD) and other Federal agencies to demonstrate the power of this system so they can fully leverage its capabilities, as well.

The Civilian Personnel Management System XXI (CPMS XXI) has identified the reforms necessary to hire, train, and grow a civilian component that supports the transforming Army. To achieve this, we have redefined the way civilians are hired, retained, and managed. Mandatory experiential assignments will become the vehicle by which we develop future leaders. CPMS XXI fully responds to current mandates in the President's Management Agenda and incorporates the results of the Army Training and Leader Development Panels. For example, two initiatives for recruiting well-trained civilians are:

- The Army Civilian Training, Education, and Development System—a centrally managed program that accesses and trains civilian interns and grows a resource pool of personnel who can accede to senior professional positions.
- The DOD Appropriations Act for fiscal year 2002 and fiscal year 2003 provided direct hire authority for critical, hard-to-fill medical health care occupations and enabled the reduction in average fill-time for these positions to 29 days.

Army Well-Being

The readiness of the Army is inextricably linked to the well-being of our people, and Army well-being is the human dimension of our transformation. Well-being responds to the physical, material, mental, and spiritual needs of all Army people—soldiers, civilians, retirees, veterans, and their families. We recognize the fundamental relationship between well-being programs and institutional outcomes such as readiness, retention, and recruiting. To support mission preparedness as well as individual aspirations, well-being integrates policies, programs, and human resource issues into a holistic, systematic framework that provides a path to personal growth and success and gives our people the opportunity to become self-reliant. We recruit soldiers, but we retain families. Well-being programs help make the Army the right place to raise a family. When our families are cared for, soldiers can better focus on their mission—training, fighting, and winning our Nation's wars, decisively.

Soldiers appreciate the Nation's devotion to them, and they are grateful for the country's recognition of their service and sacrifices. Recent improvements to the Montgomery GI Bill, Tricare for Life, Tricare Reform, Retired Pay Reform, the 4.1 percent general pay increase, and additional pay increases in 2003, are all important to soldiers and their families. These initiatives have helped the Army respond to the well-being needs of our people. Army voluntary education programs improve our combat readiness by expanding soldier skills, knowledge, and aptitudes to produce confident, competent leaders. Other well-being initiatives include:

- Spouse Employment Summit. The Army is developing partnerships with the private sector to enhance employment opportunities for Army spouses and provide improved job portability for them.
- Spouse Orientation and Leader Development (SOLD). SOLD connects Army spouses and enhances their opportunity to serve as valued leaders who contribute to the readiness and future of the Army and our Nation.
- Army University Access Online. eArmyU offers soldiers access to a variety of on-line, post-secondary programs and related educational services. www.eArmyU.com is a comprehensive web-portal widely accessible to soldiers, including those in Afghanistan, Bosnia, and Kuwait.
- In-State Tuition. To level the playing field for access to education opportunities, the Army is working to encourage States to grant in-State status for military personnel and families at public colleges and universities in their soldier's state of legal residence and state of assignment.
- High School Senior Stabilization. This policy enhances predictability by allowing families to request stabilization at their sponsor's current duty location if they have a child who will graduate from high school during that year.
- Secondary Education Transition Study (SETS) Memorandum of Agreement (MOA). Facilitated by the Army, this agreement among participating school superintendents is their commitment to partner and improve high school transitions for DOD children. Currently, over 110 school superintendents have signed the SETS MOA.

Leader Development—Training Soldiers and Civilians, Our Growing Leaders

The Army is a profession—the Profession of Arms. Conducting decisive ground combat operations in defense of the United States and its interests is a core competency of this profession. The development of each member of the Army is the foundation of lifelong devotion to duty—while in uniform and upon returning to the civilian sector.

By its nature, our profession is extraordinarily complex and dangerous. The American people entrust the Army with the sacred responsibility to apply lethal force in defense of U.S. interests. As such, the Profession of Arms must remain firmly grounded in constitutional values and must constantly change and grow to preserve its competitive advantage in an evolving strategic environment. At all levels, our leaders—military and civilian—must apply their professional knowledge in increasingly varied and unique situations that are characteristic of today's strategic environment. Ultimately, we must grow professional Army leaders who provide wise and discerning military judgments founded on long experience and proven professional expertise. This capacity is developed only through a lifetime of education and dedicated service—in peace and in war.

Soldiers serve the Nation with the full realization that their duty may require them to make the supreme sacrifice for others among their ranks. Soldiers fighting the war on terrorism today, those who will fight our future wars, and those who have fought in our past wars are professional warfighters and a precious national asset. To ensure we remain the greatest landpower in the world defending the greatest country in the world, the Army and the Nation rely upon their unique and hard-earned experiences and skills. To develop the operational skills required to defend the Nation, training must remain our number one priority.

The evolving strategic environment, the gravity of our responsibilities, and the broad range of tasks the Army performs require us to review and periodically update the way we educate, train, and grow professional warfighters. The Army's strategic responsibilities to the Nation and combatant commanders now embrace a wider range of missions. Those missions present our leaders with even greater challenges than previously experienced. Therefore, leader development is the lifeblood of the profession. It is the deliberate, progressive, and continuous process that trains and grows soldiers and civilians into competent, confident, self-aware, and decisive leaders prepared for the challenges of the 21st century in combined arms, joint, multinational, and interagency operations.

In June 2000, we convened the Army Training and Leader Development Panel (ATLDP). The ATLDP's purpose is to identify skill sets required of Objective Force soldier and civilian leaders. Further, ATLDP assesses the ability of current training and leader development systems and policies to enhance these required skills. In May 2001, the Army Training and Leader Development Panel Phase I (Officer Study) identified 7 strategic imperatives and generated 89 recommendations. With those, we validated the requirement to transform our Officer Education System (OES)—from the Officer Basic Course through the Command and General Staff Officer Course. Additionally, the panel reconfirmed the value of Joint Professional Military Education II (JPME II) in preparing our leaders for joint assignments. The most significant product of the officer ATLDP is our OES transformation.

ATLDP Phase I (Officer Study) identified three high-payoff institutional training and education initiatives for lieutenants, captains, and majors. The first of these is the Basic Officer Leader Course (BOLC). BOLC will provide a tough, standardized, graduate-level, small-unit leadership experience for newly commissioned officers. The second of these initiatives is the Combined Arms Staff Course for staff officers, and the Combined Arms Battle Command Course for company commanders. Both courses will capitalize on advanced distributed learning and intensive resident training methods. The third initiative, Intermediate Level Education (ILE), will provide all majors with the same common core of operational instruction, and it will provide additional educational opportunities that are tailored to the officer's specific career field, branch, or functional area. Beyond ILE, Army officers continue to attend Joint or Senior Service Colleges to develop leader skills and knowledge appropriate to the operational and strategic levels of the profession.

Completed in May 2002, the ATLDP Phase II (noncommissioned officer (NCO) Study) resulted in 78 findings and recommendations extending across 6 imperatives—Army culture, NCO Education Systems (NCOES), training, systems approach to training, training and leader development model, and lifelong learning. Among others, the ATLDP Phase II recommended building new training and leader development tools for NCOs to replace current methods, as required. The ATLDP Phase III (Warrant Officer Study) culminated with 63 recommendations extending across 4 crucial imperatives. Recommendations included clarifying the warrant officer's unique role in the Army and improving the Warrant Officer Education System to

ensure timely training and promotion. The Civilian Training and Leader Development Panel (Phase IV) study results are complete, and we are forming the Implementation Process Action Team (I–PAT). I–PAT will identify actions the Army must take to increase the professional development of our civilian workforce. At the senior leader level, the Army initiated the Army Strategic Leadership Course (ASLC). The program is aimed at teaching principles of strategic leadership, with emphasis on visioning, campaign planning, leading change, and transformation. To date, we have completed 12 of the foundation courses and 3 alumni courses, training the majority of the Army's general officers.

READINESS—WINNING OUR NATION'S WARS

Homeland Security (HLS)

Defending our Nation—abroad and at home—against foreign and domestic threats is fundamental to the Army's legacy, and our warfighting focus provides capabilities relevant to HLS requirements. HLS missions range from traditional warfighting competencies that defeat external threats to the non-combat tasks associated with supporting civil authorities in domestic contingencies. Operation Noble Eagle mobilized over 16,000 Army National Guard soldiers to protect critical infrastructure. These soldiers assisted the Department of Transportation in securing our Nation's airports while also playing a vital role in securing our Nation's borders. The Army is moving forward to provide one Civil Support Team to each State, as required by the National Defense Authorization Act for Fiscal Year 2003. The Civil Support Teams support Incident Commanders and identify chemical, biological, radiological, nuclear, and explosive (CBRNE) agents and substances, assess current and projected consequences, advise on response measures, and assist with appropriate requests for additional support. To date, OSD has certified 30 of 32 teams, and the Army is working to establish additional teams. Collectively, the certified teams have performed 890 operational missions since September 11, 2001. The Army remains committed to HLS, dedicating AC and RC staffs to focus on training, doctrine, planning, and execution of DOD missions in support of civil authorities.

MISSILE DEFENSE

Robust Missile Defense is a vital warfighting requirement that protects both our homeland and our deployed forces. Missile Defense includes far more than a reactive capability to shoot down missiles in their reentry phase. Missile Defense requires a coherent system of sensors; battle command; weapons systems; and active, passive, proactive, and reactive operational concepts, all aimed at destroying enemy missiles—not only during their reentry phases. Missile Defense must also be able to destroy enemy missiles on the ground, before they launch or during their boost phase once launched. Missile Defense is inherently a joint capability to which the Army is a major contributor.

The Army is deploying and employing Ground Mobile Defense assets to contribute to this warfighting capability, accelerating the fielding of the Patriot Advanced Capability 3 (PAC3) system, and developing directed energy weapons that will bring new defense measures to the Army and the Nation. We are postured to assume control of the Medium Extended Air Defense System (MEADS) program in fiscal year 2003 and intend to begin fielding by fiscal year 2012.

MEADS is a transformational program of Objective Force quality and a significant improvement on Patriot's capabilities. It will be more mobile and more deployable (C–130 capable) than Patriot and cover a 360-degree radius to Patriot's 120 degrees. It will be effective against low radar, cross section cruise missile targets; and require only 30 percent of Patriot's manpower. MEADS will be more accurate and more sustainable than Patriot.

CHEMICAL DEMILITARIZATION

In Section 1412 of Public Law 99–145, Congress directed the DOD to destroy the United States' chemical weapons stockpile. In turn, the Secretary of Defense delegated management of all chemical munitions disposal to the Department of the Army. On November 29, 2000, the Johnston Atoll Chemical Agent Disposal System, using incineration-based technology, completely destroyed the last stockpiles stored at the Atoll, and closure operations began in January 2001. The Tooele Chemical Agent Disposal Facility has incinerated 44 percent of the chemical agents and 81 percent of the munitions stored there. Disposal operations at these two sites destroyed 30 percent of the total U.S. chemical weapons stockpiles. Construction of incineration facilities at Anniston, Alabama; Umatilla, Oregon; and Pine Bluff, Arkansas, is complete. Systemization activities are ongoing at Aberdeen, Anniston,

Umatilla, and Pine Bluff. The plan to accelerate the disposal of bulk agents using a neutralization process at Aberdeen, Maryland, and Newport, Indiana, has been approved. Anniston and Aberdeen are scheduled to start destruction in second quarter fiscal year 2003, and Newport is scheduled to begin in first quarter fiscal year 2004.

To comply with treaty agreements and the congressional mandate, we must complete the destruction of these weapons by 2007. The treaty allows for a one time, 5-year extension to this deadline. With continued funding and minimal schedule changes, we will safely destroy the U.S. stockpile of lethal chemical agents and munitions at eight existing CONUS sites.

Training the Force

In October 2002, the Army released Field Manual (FM) 7–0, Training the Force. Synchronized with other field manuals and publications being updated to respond to changes in Army, joint, multinational, and interagency operations, FM 7–0 is the capstone doctrinal manual for Army training and leader development. It provides the developmental methodology for training and growing competent, confident soldiers, and it addresses both current and future Objective Force training requirements.

We are transforming the way we fight future wars, and the Army is participating fully in a DOD-sponsored program to transform how forces train to fight. This effort involves four major initiatives: building upon existing service interoperability training; linking component and joint command staff planning and execution; enhancing existing joint training exercises to address joint interoperability; and studying the requirement for dedicated joint training environments for functional warfighting and complex joint tasks. The Army is scheduled to host the first joint National Training Center (NTC) event at Fort Irwin, California, in May 2003. During June 2003, the U.S. Army Forces Command will execute the second joint NTC event—JCS exercise Roving Sands.

During the late 1990s, funding for the recapitalization and modernization of the Army's Combat Training Centers was reduced, eroding their capability to support their critical missions. Additionally, the Multiple Integrated Laser Engagement System equipment and current force instrumentation systems have become difficult to maintain. The Army's Combat Training Center modernization program will ensure that our premier training areas (NTC at Fort Irwin, Combat Maneuver Training Center in Germany, the Joint Readiness Training Center (JRTC) at Fort Polk, and the Deep Attack Center of Excellence near Gila Bend, Arizona) are modernized to provide high quality, realistic, full-spectrum joint training. To address these problems, the Army will invest nearly $700 million over the next 6 years to modernize these training centers.

OPTEMPO

In accordance with congressional directives, the Army developed a new methodology to prepare budget requests that accurately reflect operations and maintenance requirements. In the report submitted in July 2002, the Army outlined updated processes that ensure consistency in reporting of tank miles and reflect requirements and execution with more precision. Management controls initiated in fiscal year 2001 to prevent migration of tempo of operations (OPTEMPO) funds to other areas were highly successful and remain in effect.

The Army's combined arms training strategy determines the resourcing requirements to maintain the combat readiness of our forces. For the AC, the Army requires 800 ground OPTEMPO miles per year for the M1 Abrams tank and corresponding training support; the AC flying hour program requires an average of 14.5 live flying hours per aircrew each month. Both Army National Guard and the Army Reserve aircrew training strategies require 9.0 hours per crew each month. The ARNG ground OPTEMPO requirement is a composite average of 174 miles in fiscal year 2004, and the Army Reserve (USAR) ground OPTEMPO requirement is 200 tank-equivalent miles in fiscal year 2004.

While this describes the Army's training strategy, actual execution levels from unit to unit have varied depending upon factors such as ongoing operations, safety of flight messages, and adequate manning of combat formations. To this end, the Army has fully funded its AC ground OPTEMPO requirement, while its AC flying program is funded to its historical execution level of 13.1 flying hours. The RC air and ground OPTEMPO are similarly funded to their execution levels, rather than their requirement. Although the Army has not always been able to execute the training strategy, we have taken steps to have all units execute the prescribed training strategy in fiscal year 2003, fiscal year 2004, and beyond.

Force Protection and Antiterrorism

Force protection consists of those actions to prevent or mitigate hostile actions against Department of Defense personnel and includes family members, resources, facilities, and critical information. In the war on terrorism, the area of operations extends from Afghanistan to the east coast and across the United States. Naturally, force protection and antiterrorism measures have increased across Army installations in the Continental United States (CONUS) and overseas.

Findings from the Cole Commission, the Downing Report on the Khobar Towers bombing, and Army directives to restrict access to installations have all led to thorough assessments by the Department of the Army Inspector General, the Deputy Chief of Staff for Operations, and commanders. Our efforts focus on improved force protection policy and doctrine; more rigorous training and exercises; improved threat reporting and coordination with national intelligence and law enforcement agencies; enhanced detection and deterrence capabilities for CBRNE threats; increased capabilities and protection for access control; and expanded assessments of Major Commands (MACOM) and installation force protection programs. Both operational and installation environments rely upon secure, networked information infrastructure to execute daily enterprise-wide processes and decisionmaking, so the parameters of force protection include contemporary and evolving cyber threats, as well.

The Army's Information Systems Security Program (ISSP) secures the Army's portion of the Global Information Grid, secures the digitized force, and supports information superiority and network security defense-in-depth initiatives. ISSP provides the capability to detect system intrusions and alterations and react to information warfare attacks in a measured and coordinated manner. To the greatest extent possible, it protects warfighters' secure communications—from the sustaining base to the foxhole.

Soldiers, active and Reserve, are heavily engaged in force protection and antiterrorism missions. Soldiers guard military installations, nuclear power plants, dams and power generation facilities, tunnels, bridges, rail stations, and emergency operations centers. During the 2002 Winter Olympics in Salt Lake City, Utah, nearly 1,500 ARNG soldiers provided security, and soldiers guarded key infrastructure sites during Super Bowl XXXVII in January 2003. Over 12,500 RC soldiers are currently mobilized for Operation Noble Eagle to fulfill force protection requirements, and in February 2003, over 8,000 Army National Guard soldiers will support Air Force security requirements—a requirement that could reach 9,500 soldiers. Security of detention facilities and detainees at Guantanamo Bay Detention—a long-term detainee mission—requires approximately 1,500 Army personnel, 50 percent of whom are military police. Army Reserve Internment and Resettlement battalions on 6-month rotations impact military police availability to CONUS force protection requirements.

Sustainment

The Army is revolutionizing its logistics process. One initiative, the Single Stock Fund (SSF), redirected more than $540 million worth of secondary items from stocks to satisfy customer demands between May 2000—SSF inception—and November 2002. During that same period, we redistributed more than $218 million worth of secondary items from the authorized stockage levels to meet higher priority readiness requirements. By extending—national visibility of stockage locations—and capitalizing inventories into the Army Working Capital Fund—we reduced customer wait time by an average of 18.5 percent. The SSF will continue to reduce inventory requirements and generate even more savings for the Army by creating greater flexibility for the management of inventories.

Another initiative, the National Maintenance Program (NMP), enhances weapon system readiness, reliability, and availability rates by bringing Army Class IX repair parts to a single national standard. Ultimately, increased reliability will reduce overall weapon system operating and support cost. Additionally, the NMP centralizes the management and control of Army maintenance activities for components and end items. NMP will produce appropriately sized Army maintenance capacity that still meets total maintenance requirements.

Strategic Readiness Reporting

The National Defense Authorization Act for Fiscal Year 1999 requires the Secretary of Defense to implement a comprehensive readiness reporting system that objectively measures readiness to support the NSS. The Army's Strategic Readiness System (SRS) responds to and provides a baseline in achieving this critical initiative.

SRS is a precision readiness measurement tool that provides Army leadership with accurate, objective, predictive, and actionable readiness information to dramatically enhance resource management toward one end—strategic readiness to defend the United States. The Army Scorecard—a product of SRS—will integrate readiness data from the business arena and the operating, generating, and sustaining forces of both the active and Reserve component. Army Scorecard methodology focuses on four critical areas: People—investing in soldiers and their families; Readiness—maintaining the support capability to the combatant commanders' operational requirements; Transformation—transforming the Army into the Objective Force; and application of sound business practices.

SRS markedly improves how we measure readiness. It gathers timely information with precision and expands the scope of the data considered. We are further developing this system to leverage leading indicators and predict trends—solving problems that affect readiness before they become problems, from well-being to weapons platforms. SRS will help enable the Army preserve readiness to support combatant commanders, invest in soldiers and their families, identify and adopt sound business practices, and transform the Army to the Objective Force.

Installations

Army installations are our Nation's power projection platforms, and they provide critical training support to the Army and other members of the joint team. Additionally, soldiers, families, and civilians live and work on Army installations. The quality of our infrastructure directly affects the readiness of the Army and the well-being of our soldiers, families, and civilians.

The Army has traditionally accepted substantial risk in infrastructure to maintain its current warfighting readiness. However, a decade of chronic under funding has led to a condition in which over 50 percent of our facilities and infrastructure are in such poor condition that commanders rated them as "adversely affecting mission requirements." Our facilities maintenance must improve. Over the past 2 years, with the help of the administration and Congress, the Army has begun to rectify this situation with significant increases in funding and innovative business practices. These efforts have been dramatically successful as we continue to correct a problem that was 10 years in the making. Thus, in an effort to prevent future degradation of our facilities, the Army has increased its funding for facilities sustainment to 93 percent of requirement beginning in fiscal year 2004.

TRANSFORMATION OF INSTALLATION MANAGEMENT (TIM)

Recognizing the requirement to enhance support to commanders, the Secretary of the Army directed the reorganization of the Army's management structure. On October 1, 2002, the Army placed the management of Army installations under the Installation Management Agency (IMA). IMA is a new field-operating agency of the Assistant Chief of Staff for Installation Management (ACSIM). Its mission is to provide equitable, efficient, and effective management of Army installations worldwide to support readiness; enable the well-being of soldiers, civilians, and family members; improve infrastructure; and preserve the environment. This new management approach eliminates the migration of base operations funds to other operational accounts below the HQDA level. It also enables the development of multi-functional installations to support evolving force structure and Army transformation needs. The Army is poised to capitalize on opportunities TIM gives us to provide excellence in installations.

Two programs that significantly increase the well-being of our soldiers and their families are the Barracks and the Family Housing programs. The Army established the Barracks Upgrade Program (BUP) in the late 1990s to improve single soldiers' housing conditions. Through 2002, we have upgraded or funded-for-upgrade 70 percent of our permanent party barracks to soldier suites that consist of two single bedrooms with a shared bath and common area. The Army will continue the BUP until all permanent party barracks achieve this standard.

With the strong support of Congress, the Army established the Residential Communities Initiative (RCI) for our families. This program capitalizes on commercial expertise and private capital to perform a non-core function for the Army—family housing management. The program provides greater value to the Army by eliminating the housing deficit at our first 11 sites, while leveraging a $209 million Army investment into $4.1 billion of initial private development. The Army's privatization program began with 4 pilot projects and will expand to 18 active projects by the end of fiscal year 2003. Pending OSD and congressional approval, 28 projects are planned through 2006 that will impact over 72,000 housing units or 80 percent of Army Family Housing in the United States. By the end of 2007, we will have the programs and projects in place to meet the OSD goal of eliminating inadequate fam-

ily housing. We will accomplish this goal through RCI and increased Army investment in family housing Military Construction (MILCON) at non-privatized installations. The RC enhances RCI through real property exchange authority that is only available to the RC. This legislative authority allows the exchange of RC owned property with public or private entities and has a tremendous potential to improve future Reserve component infrastructure at no governmental cost.

The Army has also aggressively reduced its financial burden and physical footprint by disposing of 34 percent of its facilities from a 1990 high of 116 billion square feet. The Army anticipates that the congressional fiscal year 2005 Base Realignment and Closure (BRAC) authority will permit additional appropriate reductions. BRAC will enable the Army to dispose of excess infrastructure and realign the remaining facilities with the requirements of the transforming Army and the Objective Force. BRAC will also allow the Army to re-allocate resources from closed or realigned installations to other high priority requirements.

The Army continues to improve its utilities infrastructure by divesting itself of non-core utility systems' operation and maintenance through privatization. As of December 2002, we had privatized 64 of the 351 systems in the program, and we have an additional 104 presently under negotiation.

As part of our Army Knowledge Management (AKM)—described later in more detail—we are modernizing our Installation Information Infrastructure—info-structure—to support a network centric, knowledge-based Army. The Installation Information Infrastructure Modernization Program (I3MP) executes a multi-year, $3.2 billion program for upgrades to optical fiber and copper cable, installation of advanced digital equipment, and upgrades to Defense Global Information Grid gateways. This program will ensure worldwide, high-speed data connectivity at Army installations. To date, we have completed 22 of 95 CONUS installations and initiated upgrades at four installations outside of the CONUS. We plan to complete I3MP in 2009.

TRANSFORMATION—CHANGING THE WAY WE FIGHT

The Army is fundamentally changing the way we fight and creating a force more responsive to the strategic requirements of the Nation. We are building a joint precision maneuver capability that can enter a theater at the time and place of our choosing, maneuver at will to gain positional advantage, deliver precise joint fires and, if necessary, close with and destroy the enemy.

The Objective Force is an army designed from the bottom up around a single, networked, integrated C^4ISR architecture that will link us to joint, interagency, and multi-national forces. It will be a rapidly deployable, mounted formation, seamlessly integrated into the joint force and capable of delivering decisive victory across the spectrum of military operations. Consolidated, streamlined branches and military operational specialties comprised of professional warfighters will be poised to transition rapidly from disaster relief to high-end warfighting operations.

The Objective Force and its Future Combat System of Systems will leverage and deliver with precision the combat power of joint and strategic assets. It is a capabilities-based force that rapidly responds to the requirements of the strategic environment in which our soldiers will be the most strategically relevant and decisively capable landpower—no matter the mission, no matter the threats, no matter the risks.

In the final analysis, the Army's combat power does not wear tracks or wheels—it wears boots. No platform or weapon system can match a soldier's situational curiosity and awareness. It is the soldiers' ability to discern and to think, their ingenuity and resourcefulness, their endurance and perseverance, and their plain grit that make them the most reliable precision weapon in our inventory. Soldiers remain the centerpiece of our formations.

To help guide our transformation efforts, the Army leverages lessons-learned from extensive experimentation and wargaming. We are working to harness the power of knowledge, the benefits of science and technology, and innovative business solutions to transform both the Operational and Institutional Army into the Objective Force. The Army's annual Title 10 Wargames provide critical insights for developing the Objective Force. Likewise, results from joint experiments—Millennium Challenge 2002 and other service Title 10 Wargames like Global Engagement, Navy Global, and Expeditionary Warrior, to name a few—also inform these efforts.

The Army is fully committed to joint experimentation as a means to examine and assess Objective Force contributions to the strategic, operational, and tactical levels of joint warfare. The Army has established a joint/Army Concept Development and Experimentation (CD&E) Task Force to ensure that Army CD&E efforts are synchronized with joint CD&E. This task force makes certain that joint experiment lessons-learned inform the design and development of the Objective Force. This year,

the Army's Title 10 Wargame—co-hosted by Commander, Joint Forces Command—will focus on the Joint Force that will fight the next battle. Linked to Joint Forces Command's Pinnacle Impact 03 experiment, it will be conducted within the context of a future 1–4–2–1 global scenario and the emerging Joint Operations Concept. The Army is committed to these efforts, and in this budget we have nearly doubled last year's funding of these exercises.

Joint, interagency, multinational, and Army warfighting experiments provide invaluable opportunities for the Army to experiment with innovative approaches to warfighting and to test new tactics, techniques, procedures, organizations, processes, and technology. In Millennium Challenge 2002, the largest joint experiment in U.S. history, the Army demonstrated four vital capabilities it brings to the joint fight:

- the ability to attain and maintain information superiority (knowledge);
- the ability to conduct decisive maneuver to enable dominant joint maneuver;
- the ability to defeat the opposition in an anti-access environment through rapid entry and employment capabilities; and
- the ability to support and sustain rapid combat power efficiently by reducing the operational and tactical logistics footprint.

To evaluate the effectiveness of the Stryker Brigade Combat Team (SBCT) concepts for battalion and company operations in a Joint Force, the Army employed a SBCT unit during Millennium Challenge. Less than 4 weeks after Stryker vehicles were delivered to the first unit at Fort Lewis, the unit demonstrated rapid air and sealift deployability and—integrated into the exercise well. Additionally, when given a mission on short notice to support a Marine Corps unit in ground operations, the SBCT unit demonstrated its agility and versatility.

Balancing Risk As We Manage Change

Balancing risk is integral to Army transformation. To maintain current readiness while we transform, we are managing operational risk: risk in current readiness for near-term conflicts with future risk—the ability to develop new capabilities and operational concepts that will dissuade or defeat mid- to long-term military challenges. The Army has accepted risk in selective modernization and recapitalization, and we continue to assess these risks as we balance current readiness, the well-being of our people, transformation, the war on terrorism, and new operational commitments. Since 1999, the Army has terminated 29 programs and restructured 20 others for a total savings of $12.8 billion. These funds were reallocated to resource the Stryker Brigades and essential Objective Force research and development.

In Program Budget 2004 and its associated Five-Year Defense Plan (FYDP), the Army has generated an additional $22 billion of savings by terminating 24 additional systems and reducing or restructuring 24 other systems. To accelerate achieving the Objective Force capabilities and mitigating operational risk, the Army reinvested these savings in the development of transformational capabilities in these and other programs:

- Future Combat System—$13.5 billion
- Precision Munitions—$3.2 billion
- Sensors and Communications—$2.3 billion
- Science and Technology—$1.1 billion
- Missile and Air Defense—$1.1 billion

The operational risk associated with the decreased funding for certain current programs is acceptable as long as we field Stryker Brigades on schedule and accelerate the fielding of the Objective Force for arrival this decade. We will continue to reassess the risk associated with system reductions and related organizational changes against operational requirements and the strategic environment.

An Information Enabled Army

Achieving the full spectrum dominance of the Objective Force requires changing the way we fight. Changing the way we fight requires a holistic transformation of Logistics, Personnel, Installation Management, Acquisition, Aviation, business practices—every aspect of the Army must transform. The Objective Force requires innovative changes and out-of-the-box ingenuity in the way we take care of our people and manage the information and material that enhances their readiness and answers their needs—both personal and professional, at home and in the short sword warfight at foxhole level. Simply put, we cannot achieve the Objective Force capabilities without leveraging the full potential of the technological advances that our Nation's industrial base and science and technology communities are developing. The Army has consolidated management of Information Technologies (IT) into a single effort—Army Knowledge Management (AKM). AKM capitalizes on IT resources

unique to our Nation and harnesses them for transformation, for the Army, and for the combatant commanders.

Information management is critical to achieving the Army vision, and AKM supports transformation through the development and implementation of a network-centric, knowledge-based Army architecture interoperable with the joint system. AKM will accelerate the detect-decide-deliver planning processes and enable warfighters to see the adversary first—before our forces are detected; understand the Common Relevant Operating Picture first; act against adversaries first; and finish the warfight with decisive victories—see first, understand first, act first, finish decisively. AKM will provide knowledge at the point of decision for all leaders—from the factory to the foxhole.

Enabling collaborative mission planning and execution among widely dispersed locations around the globe, AKM will provide a rapid and seamless flow and exchange of actionable information and knowledge. The network-centric operations that AKM enables will decrease our logistic footprint and enhance sustainability of the Objective Force through multi-nodal distribution networks—reaching forward to the theater and back to installations. Advanced information technologies will dramatically enhance Battle Command. Command, Control, Communications, and Computer (C^4) decision tools seamlessly linked to Intelligence, Surveillance, and Reconnaissance (ISR) assets produce a radically improved Common Relevant Operating Picture (CROP) and enable battle command.

AKM will dramatically enhance the warfighter's ability to distribute, process, fuse, and correlate unprecedented amounts of actionable data into information—securely, reliably, and quickly enough to enable leaders to synchronize and mass effects for decisive results. Network-centric operations enable information awareness, information access, and information delivery.

The Army Knowledge Enterprise (AKE) construct describes the Army's process to enable improved strategic and tactical information distribution and collaboration. In short, AKE leverages the ingenuity and resourcefulness of our people in shaping the environment to achieve dominance and helps leaders achieve decision superiority and mission efficiencies.

Integration and refinement of existing Army networks is the first step in achieving a network-centric, information-enabled force that creates efficiencies and provides secure, reliable, actionable information communications. To this end, the Army activated the Network Enterprise Technology Command (NETCOM). NETCOM is the Army's single authority assigned to operate, manage, and defend the Army's information infrastructure. NETCOM has assumed technical control of all Army networks—active, Guard, and Reserve. This new policy allows NETCOM to evaluate any system, application, or piece of equipment that touches the Army Networks. NETCOM will improve the capacity, performance, and security of our networks at every level.

Among others, one tangible product of NETCOM is the consolidation and removal of redundant servers across the Army. This example of better business practice will harvest significant savings in resources—both dollars and managers—while increasing the effectiveness of the network. Since the first quarter fiscal year 2002, we have reduced the number of servers Army-wide by 16 percent—311 in the National Capitol Region alone.

Army Knowledge Online (AKO) begins to allow the Army to decentralize the management of information. AKO is the Army's secure, web-based, internet service that leverages the Army's intellectual capital to better organize, train, equip, and maintain our force. It gives our people a means to collaborate, to improve their situational awareness, and to access their personnel data. Already, hard-copy processes that formerly took days and weeks can now be accomplished almost instantly—from pay to personnel actions to assignments, to name a few. AKO is just an early glimpse of the potential capabilities of a network-centric, knowledge-based organization that harnesses the potential of the global infostructure.

OPERATIONAL ARMY—THE OBJECTIVE FORCE

The Army is actively engaged in global operations supporting combatant commanders today, but it is our obligation to prepare for the future, as well. The Objective Force is the Army's future full-spectrum force that will be organized, manned, equipped and trained to be more strategically responsive, deployable, agile, versatile, lethal, survivable, and sustainable than we are today—across the full spectrum of military operations as an integral member of a cohesive joint team.

The Nation will continue to face adaptive, asymmetric threats that capitalize on the power of information. To dominate and maintain superiority over these emerging challenges, the Army is changing the way we fight—a paradigm shift more sig-

nificant than the 20th century's introduction of the tank and the helicopter. The Army is changing from sequential and linear operations to distributed and simultaneous operations. The Objective Force—characterized by networks of people enabled with systems that provide actionable information and decision superiority—will dissuade, deter, or decisively defeat our adversaries anytime, anyplace, and anywhere.

The Objective Force will consist of command structures scaled to meet Joint Force Commander requirements and modular combined-arms units tailored according to each situation. Objective Force integrated, mobile, air-ground teams will conduct mounted and dismounted operations and employ both manned and unmanned platforms to achieve decisive victories. Capable of forcible entry and operations in austere environments to address the spectrum of military operations—from humanitarian assistance to warfighting—the Objective Force will conduct simultaneous combat and stability operations and master transitions between phases of operations. It will be an offensively oriented, multi-dimensional force enabled by advanced information technologies that give soldiers real-time intelligence and actionable information.

The Objective Force will arrive in theater combat capable—deployment will be synonymous with employment. The Objective Force will be strategically responsive and rapidly deployable on the U.S. Air Force family of inter-theater and intra-theater aircraft. An Objective Force Unit of Action (UA) will deploy on approximately one-third the number of aircraft required to deploy a heavy brigade combat team today. It will be operationally deployable and capable of operational maneuver over strategic distances by air, land, or sea. Soldiers will overcome anti-access and area denial strategies and environments through precision maneuver and decision superiority.

Equipped with new systems designed to meet the needs of the Army's future fighting formations, the Objective Force will be a networked system of systems. This system of systems includes soldiers equipped with the Land Warrior system; a family of 18 integrated, synchronized, manned, and unmanned Future Combat Systems (FCS); and critical complementary systems such as the Comanche and the Future Tactical Truck System. The components of the FCS are being synchronously developed and fielded as a complete family to achieve the warfighting capabilities the Nation requires to defeat adaptive, asymmetric conventional and unconventional adversaries.

Soldiers are the centerpiece of the Army's formation—not equipment. Soldiers of the Objective Force will leverage dominant knowledge to gain decision superiority over any adversary. They will seamlessly integrate Objective Force capabilities with the capabilities of Joint Forces, Special Operations Forces, other Federal agencies, and multinational forces. The Objective Force soldiers will enable the United States to achieve its national security goals in a crisis, rather than simply inflict punitive strikes on an adversary. Employing FCS capabilities in formations called Units of Action (UA) and Units of Employment (UE), Objective Force soldiers will provide campaign quality staying power—that means precision fire and maneuver to control terrain, people, and resources, without having to resort to indiscriminate collateral damage. The Land Warrior system will integrate individual soldiers in the network while providing them increased protection and lethality. FCS will give soldiers the capability to destroy any adversary in any weather and environment with smaller calibers, greater precision, more devastating target effects, and at longer-ranges than available today.

Joint C^4ISR—a network-centric information architecture nested within the Global Information Grid—will connect the Objective Force's system of systems. Capitalizing on the synergistic power of the information network enterprise, every Objective Force soldier and platform will be capable of sensing and engaging the enemy while maintaining situational awareness of friendly forces. Advanced information technologies and C^4ISR decision tools and assets will enhance the Common Relevant Operating Picture (CROP). The Objective Force will identify, locate, and engage critical targets with lethal or non-lethal affects and assess battle damage on those targets. The joint C^4ISR linkages will enable the attack of targets with whatever joint or Army assets are available for immediate employment, whether the force is in contact or out of contact. Similarly, enhanced situational awareness will facilitate multi-layered active and passive defense measures—including both offensive and defensive counter air against air and non-air breathing, manned, and unmanned aerial vehicles.

The CROP and network-centric operations will enhance sustainability of the Objective Force through multi-nodal distribution networks that reach forward to the area of operations or reach back to the Home Station Operations Center. Increased reliability through equipment design and commonality among the FCS family of systems will enhance sustainability while reducing logistics demands. Advanced tech-

nologies will enable robust Objective Force operations while shrinking the logistics footprint and lift requirements of deployed forces.

The FCS is a transformational approach to meeting this Nation's requirements for the Objective Force. We designed and will field the FCS family in a carefully balanced manner to avoid optimizing a component at the expense of sub-optimizing the overarching capabilities of Objective and Joint Forces. The acquisition and requirements development processes are being updated to accommodate the Department of Defense's (DOD) direction to field a networked system of systems rapidly through spiral development and an open architecture that allows maturing technological insertions as they occur.

The Army embraces the ongoing DOD and Joint Staff Capabilities and Acquisition processes reform efforts to achieve revolutionary capabilities in the fielding of a new generation of equipment. This collaborative DOD and JCS effort enables the Army to design new information-age capable organizations holistically, use evolutionary acquisition strategies to equip those organizations, and see the Objective Force fielded before the end of this decade.

SCIENCE AND TECHNOLOGY—MOVING TOWARD THE TRANSFORMED ARMY

Preempting our adversaries' technological surprises over the past 3 years, Army science and technology (S&T) investments are already providing America's Army with sustained overmatch in all materiel systems. The Army has increased and focused its S&T investments. We are demonstrating the enabling joint interoperable technologies essential for Objective Force capabilities and accelerating their arrival. Our S&T program is pursuing a wide spectrum of technologies for unmanned air and ground systems that will expand the range of joint warfighting capabilities, reduce risk to soldiers, and reduce the logistics footprint of the force. Realizing the full potential of unmanned systems requires technological development in sensors that improve navigation and mission performance, in intelligent systems for semi-autonomous or autonomous operation, in networked communications for manned-unmanned teaming, and in human-robotic interfaces, among many others.

The Defense Advanced Research Projects Agency (DARPA) and Army partnership contracted for a Lead Systems Integrator (LSI) to accelerate the transition of FCS to the System Development and Demonstration (SDD) Phase, with a Milestone B decision in May 2003. The Army is on track to achieve first unit equipped in 2008 and an initial operating capability of one Objective Force Unit of Action (UA) in 2010. To accelerate development and in partnership DARPA, the focus on key transformation technologies for the FCS has been narrowed to the systems with the most promise. Our highest priority S&T efforts remain technological advances for FCS.

The Army will field FCS as a family of systems built on information age technologies embedded in manned and unmanned air and ground platforms. Integral to joint fires, the family of systems will integrate long-range air- and ground-based sensors with long-range cannon and missile precision munitions. The family of systems will also provide increased joint capabilities to conduct battle command, reconnaissance, mounted combat operations, dismounted combat operations, medical treatment and evacuation, and maintenance and recovery. To provide decisive lethality, FCS will employ networked, precision, and loitering attack munitions fired from modular, easily transportable containers. Finally, FCS will leverage embedded, real-time interactive, virtual, distributed, collaborative, joint simulations for training and mission rehearsal.

ENABLING THE OBJECTIVE FORCE SOLDIER

Eighteen systems, both manned and unmanned, the Objective Force soldier, and C^4ISR, together, comprise the FCS. Manned and unmanned reconnaissance capabilities are part of the FCS family of systems' interdependent networked air- and ground-based maneuver, maneuver support, and sustainment systems.

There are 10 Unmanned Systems: Unmanned Aerial Vehicles (UAV) Classes 1, 2, 3, and 4; Unmanned Ground Vehicles (UGV)—the Multifunction Utility/Logistics and Equipment (MULE), the Armed Robotic Vehicle (ARV), and the Small (manpackable) Unmanned Ground Vehicle (MUGV); Unattended Ground Sensors (UGS); and Unattended Munitions—the Non-Line-of-Sight (NLOS) Launch System (LS) and Intelligent Munitions Systems (IMS).

There are eight manned systems: the Infantry Carrier Vehicle (ICV); Command and Control Vehicle (C2V); Reconnaissance and Surveillance Vehicle (RSV); Line-of-Sight, Beyond-Line-of-Sight Mounted Combat System (LOS/BLOS MCS); NLOS-Mortar; Medical Vehicle (MV); the FCS Recovery and Maintenance Vehicle (FRMV); and the Non-Line-of-Sight (NLOS) Cannon.

Decisive warfighting is about fires and maneuver: fires enable maneuver, and maneuver enables fires. Joint and organic close, supporting, indirect fires destroy the enemy, suppress the enemy's capabilities, protect our forces, and enable ground units to maneuver. The ICV, the Unattended Munitions NLOS–LS, IMS, C2V, MCS, NLOS-Mortar, and NLOS Cannon are important elements of the FCS that will enable the Objective Force to conduct distributed and simultaneous joint combat operations. With joint fires, the NLOS cannon is critical to support and protect our land forces in hostile environments. NLOS–LS NetFires is a platform-independent family of missiles with precision attack and loitering capability. Both Precision Guided Mortar Munitions and Excalibur precision cannon munitions will enhance organic maneuver fires. A new, joint fire support, battle command, and fire support architecture will allow rapid engagement of targets by any Army or joint asset.

For over 227 years, soldiers have remained the centerpiece of our formations. The Land Warrior program—another key S&T initiative—responds to this legacy and enhances our soldiers combat power generation capability. The Land Warrior program will develop a lightweight, low observable, enhanced-armor protection, fighting ensemble for the individual Objective Force soldier. Through networked connectivity to the FCS-equipped, maneuver Unit of Action, Land Warrior soldiers will enable revolutionary lethality, mobility, survivability, and sustainability for the individual warfighter while reducing logistics demands.

Future Combat Systems are networked in the joint C^4ISR architecture—including networked communications, networked options, sensors, battle command systems, training, and both manned and unmanned reconnaissance and surveillance capabilities. These networked systems will dramatically enhance situational awareness and understanding and operational level synchronization well beyond today's standards. Improved C^4ISR capabilities will enable network-centric Objective Force operations. The results of the investments will allow leaders to capitalize on sensor and processing technology to see, understand, and shape the battlespace before the enemy can react—increasing combat force effectiveness and survivability. The S&T program will develop and demonstrate real-time, continuous situational understanding by integrating data from manned and unmanned air- and ground-based sensors.

S&T investments in military logistics are an important enabler for the Objective Force. We are placing our emphasis on sustainment's big drivers—fuel, ammunition, maintenance, and water—to dramatically reduce our logistics footprint and lift requirements in these areas. Key technologies include on-board water generation, real-time logistics command and control processes and distribution management, enhanced multi-purpose munitions and packaging, efficient propulsion and power technologies, real-time diagnostics and prognostics, and Micro-Electro Mechanical Systems (MEMS).

TRANSFORMATIONAL SYSTEMS

Several transformational systems were under development prior to announcement of the Army vision in October 1999. The Army has completed an extensive analysis to identify those systems that complement FCS and the Objective Force system of systems.

The Comanche Helicopter is the centerpiece of the Aviation Modernization Plan (AMP) and represents the first new system to reach Initial Operational Capability (IOC) within the Army's Objective Force. Comanche is our armed reconnaissance platform with attack capabilities. It will leverage the situational awareness and situational curiosity of a scout augmented with revolutionary, state-of-the-art ISR technologies. Comanche supports vertical and horizontal maneuver as an integral part of network-centric operations and extends human eyes and decisionmaking beyond the ground maneuver force. Utilizing stealth technologies, it will network with all joint C^4ISR and joint weapons systems. Comanche will leverage maximum effect of future standoff precision weapon systems such as the Common Missile and allow us to maneuver ground formations based upon full knowledge of the situation. Augmented with armed or unarmed UAVs, Comanche will fill ground maneuver's most critical battlefield deficiency—armed aerial reconnaissance—with a capable, survivable, and sustainable aircraft. The Comanche program is already well on its way to giving the Army a capability pivotal to transforming the way we will fight.

Several other transformational systems will empower the Objective Force with the knowledge dominance and battle command to provide decision superiority across the spectrum of operations. The Warfighter Information Network-Tactical (WIN–T) System, Medium Extended Air Defense System (MEADS), the Joint Tactical Radio System (JTRS), and the Army Airborne Command and Control System (A2C2S) will enable Objective Force joint C^4ISR capabilities. These programs will provide the tactical enterprise level networks that will ensure seamless, secure, digital connectivity

between the Objective, Interim, and today's forces. The Distributed Common Ground System—Army (DCGS–A) architecture provides Army network-centric ISR connectivity from national agencies to joint systems to Objective Force Units of Action as part of the integrated Department of Defense DCGS architecture. DCGS–A will enable interoperable tasking, processing, and exploitation capabilities. The Aerial Common Sensor brings improved signal intelligence collection and precision geolocation capabilities, as well as imagery intelligence (IMINT) and measurement and signals (MASINT) sensor packages. Another system, Prophet, uses communications intelligence to depict the battlespace and further enhance situational awareness. These C^4ISR systems greatly enhance the Objective Force's ability to gain actionable information superiority and decision dominance over all adversaries and expand the range of options for the Joint Force combatant commanders.

Transformational systems will provide the Objective Force with strategic and tactical maneuver capabilities. The Theater Support Vessel will support rapid intratheater lift requirements, provide the capability to conduct operational maneuver and repositioning, and enable units to conduct enroute mission planning and rehearsal. The Future Tactical Truck System will have commonality with FCS and will support the Objective Force by enabling command, control, and transportation of cargo, equipment, and personnel. The Tactical Electric Power (TEP) generators will provide power to Objective Force units where fixed power grids are not available.

Transformational systems provide the Objective Force with other important capabilities, as well. CBRNE effects systems support the Objective Force across the spectrum of military operations and improve capabilities to conduct homeland security activities. Engineer, civil affairs, and psychological operations vehicles will enable mobility and enhance civil affairs and PSYOPs capabilities. The Up-Armored High Mobility Multi-purpose Wheeled Vehicle (HMMWV) will improve Objective Force soldier survivability and lethality. The Multi-Mission Radar will provide the capability to detect and track aircraft, artillery, and other projectiles, then queue appropriate weapons systems and airspace synchronization systems. The High Mobility Artillery Rocket System (HIMARS) is a lighter weight, more deployable multiple rocket launcher capability that will integrate into the joint fires network.

Bridging the Capabilities Gap—Stryker Brigade Combat Teams

Announcing our intent to field an Interim Force in October 1999, the Army responded to a capabilities gap between its lethal, survivable, but slow-to-deploy heavy forces and its rapidly deployable light forces that lack the protection, lethality, and tactical mobility that we seek. Just 2½ years later in 2002, the Army began fielding the first Stryker Brigade Combat Team to bridge that gap. In 2003—less than 4 years after the announcement—we are on track to achieve IOC with the first SBCT at Fort Lewis, Washington. Stryker Brigades will provide the combatant commander vastly increased operational and tactical flexibility to execute fast-paced, distributed, non-contiguous operations.

Stryker Brigade Combat Teams respond to combatant commander requirements across the spectrum of military operations. Optimized for combat in complex and urban terrain, the Stryker Brigades will be decisive in other major combat operations, as well. The SBCT Reconnaissance, Surveillance, and Target Acquisition (RSTA) Squadron provides both organic human intelligence capabilities and UAVs embedded at the brigade level. Its military intelligence and signal companies—working through a digitally enabled battle command bridge—leverage theater and national assets to create an information-enabled force. SBCTs will use this enhanced joint C^4ISR capability to revolutionize combat paradigms from "make contact, develop the situation, maneuver the forces" to "understand the situation, maneuver the forces, make contact at the time and place of your own choosing, and finish decisively."

Moreover, leveraging platform commonality, enhancing logistics practices and enablers, and reorganizing logistics formations, the SBCT is vastly more deployable and sustainable than our heavy forces, while significantly increasing combat power generating capabilities. Augmented for sustained operations, the SBCT requires 37 percent fewer CSS personnel than a digitized heavy brigade. While capitalizing on these advantages, developing and available technologies allow us to mass effects—rather than massing formations—and create a robust, reliable capability to conduct operational maneuver over strategic distances.

Finally, SBCTs provide an invaluable means of spearheading transformation. The SBCT trains junior officers and noncommissioned officers—tomorrow's commanders and command sergeants major—in the tactics, techniques, and procedures that will inform employment of the Objective Force.

The Army has resourced six Stryker Brigade Combat Teams to contribute to fulfilling the 1–4–2–1 defense construct and national security requirements; however, at this time, the Secretary of Defense has only authorized the procurement of the first four brigades. The Army will provide the Secretary of Defense with a plan for Stryker Brigades 5 and 6.

Fielding of the SBCTs affects the entire Army: active and Reserve components; heavy and light forces; CONUS and OCONUS. Current fielding timelines will enhance the Nation's ability to fight and win the GWOT and conduct major combat operations. The transformation of four active component brigades to SBCTs provides a rotational base with three of the SBCTs focused on the Pacific theater. One of the two SBCTs fielded at Fort Lewis will be forward-based in Europe not later than 2007. The Stryker Cavalry Regiment will support the XVIII Airborne Corps' critical need for robust, armed reconnaissance. The conversion of a Reserve component brigade to an SBCT will enhance our strategic Reserve and support the GWOT, smaller scale contingencies, and homeland defense missions. Additionally, SBCT stationing provides rapid, strategic responsiveness through power projection platforms capable of supporting four critical regions described in the 1–4–2–1 defense construct. The first SBCT will attain Initial Operational Capability in the summer of 2003.

Preserving the Army's Legacy

Today's force guarantees the Army's near-term warfighting readiness to fight and win our Nation's wars, decisively. Because the Army bypassed a procurement generation, the Army's Combat Support and Combat Service Support systems now exceed their 20-year expected life cycle, and 75 percent of our critical combat systems exceed their expected half-life cycle. To maintain operational readiness while preserving resources for transformation, the Army is recapitalizing and selectively modernizing a portion of the current force. The modernization program addresses the critical issue of AC and RC interoperability and serves as a bridge to mesh these two components seamlessly. In general, the Army increased funding for programs that are clearly transformational and support the Defense transformation goals, sustained funding for high priority systems that will transition to the Objective Force, and reduced funding for systems not essential to Army transformation. The Army remains committed to its 17-system recapitalization program, but we have reduced the prioritized recapitalization program from three-and-one-third divisions to two divisions.

Army Special Operations Forces are an indispensable part of the Army and will continue to provide unique capabilities to the Joint Force and Land Component Commanders. In response to the increasing requirement for Special Operations Forces in support of joint campaign plans, the Army has validated and resourced growth in its SOF structure. The recent initiatives will transfer 1,788 manpower spaces to Major Force Program-11 beginning in fiscal year 2003. Since the commencement of Army Special Operations Forces operations in support of the GWOT, the U.S. Army has provided over $1.4 billion in new equipment to enhance Special Operations Forces firepower, communications, and ground and air mobility.

The Army will remain the largest user of space-based capabilities among the Services. Army space assets are providing tangible support to the war on terrorism and Operation Enduring Freedom—they ensure Army and Joint Force Commanders optimize communications, satellite intelligence, global positioning system, imagery, weather, missile warning, and other space-based capabilities in every aspect of planning and operations. We are working diligently with the joint and interagency space community to ensure that Army and joint space systems continue to provide their essential capabilities now and for the Objective Force.

AVIATION TRANSFORMATION AND RESTRUCTURING

Aviation transformation further demonstrates the Army's hard choices in balancing risk to resource transformation. Our interim plan—now in progress—lowers operating and sustainment costs while posturing aviation for arrival of the Objective Force by 2010. Apache modernization is an integral part of the Army Aviation Transformation Plan. The AH–64D Longbow heavy attack team will enhance domination of the maneuver battlespace and provide the ground commander with a versatile, long-range weapon system against a range of fixed and moving targets. The UH–60 Blackhawk continues to be the assault workhorse of Army Aviation, executing over 40 percent of the Army's annual flying hours. We are extending the life of the UH–60 while providing it with capabilities required of the future battlespace. Similarly, the Army is fully committed to the CH–47F Chinook program. Its heavy-lift capability is invaluable to transforming the Army. As we restructure and standardize attack and lift formations across the force, we will also adjust the stationing and alignment of Reserve component aviation units to mitigate the near-term risk.

Army National Guard Aviation comprises almost 50 percent of the Army's aviation force and is one of the Nation's most valuable assets both for wartime and for peacetime missions. Essential for successful execution of the Nation's military strategy, the ARNG currently has aviation units deployed in Afghanistan, Kuwait, Bosnia, Europe, and Saudi Arabia, as well as Central and South America.

ARMY NATIONAL GUARD RESTRUCTURING INITIATIVE (ARNGRI)

ARNGRI seeks to transform a sizeable portion of ARNG combat structure into more deployable, flexible fighting forces to support Army requirements at home and abroad. ARNGRI will introduce two new organizations into the force structure: Mobile Light Brigades and Multi-Functional Divisions. These organizations will provide full spectrum capabilities in support of combatant commanders. The Mobile Light Brigades will operate as a subordinate unit to the multi-functional divisions, which will also contain two combat support/combat service support brigades and be capable of supporting either major combat or homeland security operations.

ARMY RESERVE TRANSFORMATION INITIATIVES

By providing responsive force generating capability and technically trained individuals, the USAR facilitates our capability to conduct extended campaigns in multiple theaters and to sustain joint operations. Army Reserve initiatives ensure the USAR is missioned, organized, and equipped to provide interoperability across the full spectrum of military operations. Transformational organizations include experimentation forces and information operations, joint augmentation, network security, and interagency units.

The Readiness Command Restructuring initiative and Federal Reserve Restructuring Initiative will help the USAR fulfill these new mission requirements. These initiatives lend greater flexibility to efforts that enhance responsiveness to America's foreign and domestic protection needs. Regional Readiness Commands will focus on individual and unit readiness, leader development, training, and growth which will demand a new personnel system that achieves holistic life-cycle management for Army Reserve soldiers.

INSTITUTIONAL ARMY—TRANSFORMING THE WAY WE DO BUSINESS

We have made great strides in revolutionizing our business management practices by starting at the very top. Last year, we realigned our headquarters by reorganizing and realigning responsibilities of the Secretariat and the Army Staff—streamlining coordination, tasking, and decisionmaking—resulting in a more responsive and efficient organization. This initiative allowed us to eliminate unnecessary functions and redistribute 585 manpower spaces to accomplish core competencies.

As previously discussed, the Army has addressed the management of its installations, personnel systems, and contracting in its Transformation of Installation Management (TIM). We are aggressively pursuing efforts to outsource non-core functions. The Army will reap substantial dividends in efficiency and effectiveness through these strategic realignments of human and physical capital.

PERSONNEL TRANSFORMATION

The Secretary of the Army's key management initiative is personnel transformation. Its goal is to modernize and integrate human resource programs, policies, processes, and systems into a multi-component force that includes civilians and contractors. We will evaluate our processes and implement the most efficient program, policies, and organizations to support the Objective Force.

The centerpiece of personnel transformation is a comprehensive effort focused on a potential Army-wide implementation of unit manning and unit rotation. We are aggressively examining the feasibility of a unit manning and rotation system that would better support the new national defense strategy, improve cohesion and combat readiness within the operational Army, provide highly cohesive well-trained units to combatant commanders, and improve well-being for families by providing greater stability and predictability in assignments. The Army currently uses unit rotations in support of operational missions in the Balkans, Sinai, and Afghanistan. The Army is studying the use of unit rotations for other locations and in the war on terrorism. Units would know of these rotations well in advance, providing families with greater predictability and enabling focused preparation, both of which contribute to increased combat readiness of the unit.

Unit manning seeks to synchronize the life cycle of a unit with the life cycle of the soldier within that unit. All soldiers and leaders would be stabilized, resulting in a significant increase in cohesion and combat readiness over our present individ-

ual replacement system. Such a system has significant second and third order effects across the force—training and leader development, recruiting and retention, unit readiness levels, and total Army end strength, among others. All of these are being studied intensively, and we anticipate senior Army leadership decisions on unit manning and unit rotation in July 2003.

THIRD WAVE

Because we operate in an environment in which there are increasing demands for military capabilities—the Secretary of the Army's Third Wave initiative seeks to ensure that we are achieving the best value possible for our taxpayers' dollars.

There are three phases to the Third Wave process. First, we determined what activities were core or non-core to the Army's mission. In the second phase, we are validating the breakout between core and non-core functions by determining if any non-core functions should be exempted. This phase has an anticipated completion date of mid- to late-February 2003. Upon completion, the Army leadership will notify Congress of the results of this phase. In the third phase, key Army leaders will assess appropriate plans to execute non-core functions, select the best means to proceed, and develop implementation plans. At this time, we do not know how many of the 214,000 jobs identified as potentially non-core functions in Phase I will be included in implementation plans. Although implementation plans will target execution in fiscal years 2005–2009, some implementation plans may be delayed beyond that period.

The implementation of competitive sourcing of non-core functions will adhere to OMB Circular A–76 and related statutory provisions. Exceptions to the requirement for public-private competition are limited, such as where 10 or fewer civilian employees perform the function or where legal restrictions against using the A–76 process apply to the function. To lower costs for taxpayers and improve program performance to citizens, OMB has undertaken major revisions to the processes and practices in OMB Circular A–76 to improve the public-private competition process.

ACQUISITION TRANSFORMATION

The Army is leading the way in acquisition reform within DOD's broad transformation of defense acquisition policies and procedures. The Army's FCS program may prove to be the largest DOD acquisition effort that fully embraces the concepts of evolutionary acquisition and spiral development—leveraging the potential of rapid advancement within individual technologies by allowing for changes within programs as technologies mature.

The FCS program is evolutionary in its design and incorporates periodic blocked improvements within its 19 systems—the Objective Force soldier and 18 manned and unmanned systems. Within these 19 systems are 540 spirally developing technologies. The Army's use of a Lead System Integrator (LSI) enables a "best of the best" approach to selection from competing industry efforts. Our unprecedented partnership with DARPA ensures the FCS effort leverages that agency's DOD-wide perspective and resources to produce the best capability and value for the Joint Force.

The Army continues to revise its acquisition policies and applicable regulatory guidance. On October 3, 2001, the Army approved an acquisition reorganization that transferred control of all acquisition program management to the Army Acquisition Executive (AAE) and eliminated duplication of effort in two major Army commands. Effective October 2002, 12 Program Executive Officers (PEO) report to the AAE, and their subordinate PEOs assumed management of all Army acquisition programs, regardless of acquisition category. The plan ensures that there is only one chain of authority for acquisition programs within the Army. In addition, the plan clearly holds program managers responsible and accountable for the life cycle management of their assigned programs.

We have also transformed the way we conduct business through the organization of the Army Contracting Agency (ACA) that realigns our previously decentralized installation and information technology contracting processes into one organization. Responsible for all contracts over $500,000 and tasked to eliminate redundant contracts, ACA leverages Army-wide requirements to achieve economies of scale. ACA supports Army transformation efforts by aligning all base support contracting into a single organization that best supports installation management transformation. All of these initiatives use information technology to leverage enterprise-wide buying capabilities. Additionally, ACA will act as the single coordinating element and form the base from which to deploy contingency-contracting, operational support to the warfighting commands. The ACA and other contracting activities will continue

to support small business awards in the outstanding manner it did in fiscal year 2002.

LOGISTICS TRANSFORMATION

We cannot transform the Army without a transformation in logistics. We must incorporate the logistician's view into the design of our systems even before we begin to build platforms. Collaboration between the acquisition and logistics communities will give the Objective Force the rapid deployability and sustainability we demand—by design—without compromising warfighting capability.

Designing the right logistics architecture—systems, business processes, enterprise, for example—is fundamental to success. The Army's logistics transformation will focus on creating an overarching corporate logistics enterprise that employs industries' best business practices. Within this enterprise, the Army established three principal goals for logistics transformation: enhance strategic mobility and deployability; optimize the logistics footprint; and reduce the cost of logistics support without reducing readiness or warfighting capability.

The Army's mobility and deployability goals for the Objective Force are to deploy a combat brigade within 96 hours after lift off, a division on the ground in 120 hours, and a five-division corps in theater in 30 days. To achieve this strategic responsiveness, the Army Strategic Mobility Program (ASMP) serves as a catalyst to bring about force projection changes both in the Army's and in our sister Services' lift programs.

Platforms like the Intra-Theater Support Vessel (TSV) and Inter-Theater Shallow Draft High Speed Sealift (SDHSS) provide transformational capabilities for operational and strategic maneuver and sustainment of Army formations.

Because strategic air and sealift cannot meet deployment requirements, Army Prepositioned Stocks (APS) ashore and afloat continue to be a critical component of Army power projection. The Army is currently participating in a joint-led Worldwide Prepositioning Study to determine if location, mix, and capabilities in existing stocks of combat, combat support, and combat service support require adjustments to meet the defense strategy more effectively.

The Objective Force requires the Army to optimize its logistics footprint to produce a smaller, more agile, responsive, and flexible sustainment organization. To achieve this goal, we will leverage technology and innovative sustainment concepts. The Army is already developing and integrating key enablers to provide a transformed, corporate logistics enterprise. Some of these enablers include embedded diagnostics and prognostics, tactical logistics data digitization (TLDD), serial number tracking, and the Global Combat Service Support-Army (GCSS–A) system that utilizes a commercial Enterprise Resource Planning (ERP) solution. The ERP approach changes the Army's logistics automation systems strategy from one of custom code development for unique Army requirements to adoption of a commercial off-the-shelf (COTS) product.

The selective use of the Logistics Civil Augmentation Program (LOGCAP) to augment military logistics force structure provides commanders with the flexibility to reallocate manpower, resources, and materiel by adding contractors to the equation of logistics support. In addition to providing services and some supply support, these contractors can quickly deploy to establish base camps, receive and process soldiers as they begin arriving in theater, and reverse the process when soldiers go home.

Current initiatives that help reduce costs without reducing readiness or warfighting capability include the National Maintenance Program and the Single Stock Fund (SSF). As previously discussed, programs provide two basic building blocks for a revolutionary change in logistics business practices.

ADVANCED MEDICAL TECHNOLOGY

Congress designated the Army as the lead agent for DOD vaccine, drug, and development programs for medical countermeasures to battlefield threats. This includes vaccines against naturally occurring infectious diseases of military significance, combat casualty care, military operational medicine, and telemedicine research. The program also funds Food and Drug Administration requirements for technology transition to advanced development.

The medical force provides the requisite medical intervention and care for the Joint Force deployed around the globe. With its Medical Reengineering Initiative (MRI), the Army Medical Department has transformed 28 percent of its Corps, and echelon above Corps, force structure to an organizational structure that promotes scalability through easily tailored, capabilities-based packages. These packages result in improved tactical mobility, reduced footprint, and increased modularity for flexible task organization. MRI supports both the current forces and the Stryker

Brigades, and is the bridge to the Objective Medical Force. We have implemented innovative strategies to make the most efficient use of our budget. Medical modernization, which includes the acquisition of current medical equipment and technology, is partially funded within MRI units.

BUSINESS INITIATIVES COUNCIL

In June 2001, the Secretary of Defense established the Department of Defense Business Initiatives Council (DOD BIC). The DOD BIC's goal is to improve business operations and processes by identifying and implementing initiatives that expand capabilities, improve efficiency and effectiveness, and create resource savings in time, money, or manpower.

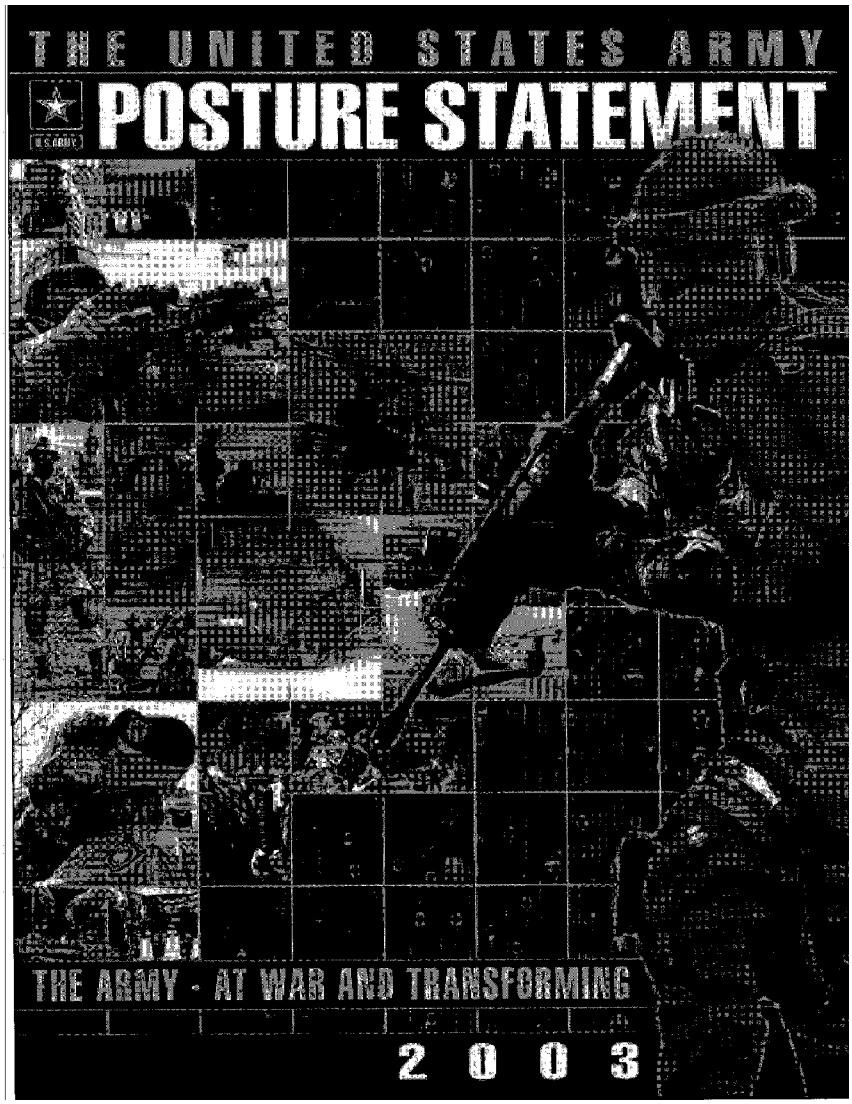
The Army has aggressively explored ways to improve its internal business practices, and has established the Army BIC, under the leadership of the Secretary and the G–8. Effective November 13, 2002, the Secretary of the Army has approved a total of 35 initiatives under the Army BIC. Subsequently, the Army submitted a number of the initiatives through the formal DOD BIC process for implementation across the Services and other DOD activities. The BIC process has helped to create a culture of innovation and inter-service cooperation. The superb level of cooperation across the military departments, the Joint Staff, and OSD has made this possible.

A COMMITMENT TO THE FUTURE

With the continued strong support of the administration, Congress, our soldiers, and our Department of the Army civilians, and the greatest industrial base and science and technology communities in the world, the Army will field the Objective Force—this decade.

By 2010, we will have fielded the first operationally capable Objective Force unit equipped with the Future Combat Systems. Our Stryker Brigade Combat Teams will be providing to combatant commanders capabilities not currently available—enhanced strategic responsiveness and the ability to operate in a distributed, non-linear battlespace. Through selective recapitalization and modernization of systems that enable our soldiers to preserve our legacy today, we will have sustained a decisive-win capability at a high state of readiness as an integral part of the Joint Force. We will have significantly improved the well-being of our people and sustainment of Army infrastructure.

We remain committed to our legacy—preserving America's freedoms. In peace and in war, the Army's soldiers serve the Nation with unmatched courage, indomitable will, pride, and plain grit—as they have for over 227 years. Soldiers will continue to fight and win the Nation's wars, decisively—it is our sacred duty and our non-negotiable contract with the American people.


THE UNITED STATES ARMY
POSTURE STATEMENT
U.S. ARMY
THE ARMY - AT WAR AND TRANSFORMING
2003

A Statement on the Posture of the United States Army 2003

By

The Honorable Thomas E. White

And

General Eric K. Shinseki

Presented to
The Committees and Subcommittees
Of the

UNITED STATES SENATE
And the
HOUSE OF REPRESENTATIVES

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The annual Army Posture Statement is an unclassified summary of Army roles, missions, accomplishments, plans, and programs.
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Feb 11, 2003

America's armed forces are the most powerful in the world. And America's Army remains the most respected landpower to our friends and allies and the most feared ground force to those who would threaten the interests of the United States.

Since before the birth of the Nation, American Soldiers have instilled hope in a noble dream of liberty. They have remained on point for the Nation through nine wars, and the intervals of peace in the years between - defending the Constitution and preserving freedom. Magnificent in their selfless service, long in their sense of duty, and deep in their commitment to honor, Soldiers have kept the United States the land of the free and the home of the brave. This is our legacy. Our Soldiers who serve today preserve it.

In October 1999, we unveiled our vision for the future - "Soldiers, on point for the Nation, transforming this, the most respected army in the world, into a strategically responsive force that is dominant across the full spectrum of operations." The attacks against our Nation on 11 September 2001 and the ensuing war on terrorism validate The Army's Vision - *People, Readiness, Transformation* - and our efforts to change quickly into a more responsive, deployable, agile, versatile, lethal, survivable, and sustainable force.

While helping to fight the Global War on Terrorism, The Army is in the midst of a profound transformation. Readiness remains our constant imperative - today, tomorrow, and the day after. Transformation, therefore, advances on three broad axes: perpetuating The Army's legacy by maintaining today's readiness and dominance; bridging the operational gap with an Interim Force of Stryker Brigade Combat Teams; and fielding the Objective Force to fight and win conflicts in the years beyond this decade.

As they have throughout The Army's 227-year history, Soldiers remain the centerpiece of our formations. Versatile and decisive across the full spectrum of joint missions, land forces have demonstrated time and again the quality of their precision in joint operations. Our responsibility is to provide Soldiers with the critical capabilities needed for the tough missions we send them on.

After three and a half years of undiminished support from the Administration and the Congress, and the incredible dedication of Soldiers and Department of the Army civilians, we have begun to deliver The Army Vision. With continued strong support, we will win the war against global terrorism, meet our obligations to our friends and allies, remain ready to prevail over the unpredictable, and transform ourselves for decisive victories on future battlefields.

We have achieved sustainable momentum in Army Transformation; the framework is in place to see the Objective Force fielded, this decade.

ERIC K. SHINSEKI
General, U.S. Army
Chief of Staff

THOMAS E. WHITE
Secretary of the Army

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THE ARMY - AT WAR AND TRANSFORMING

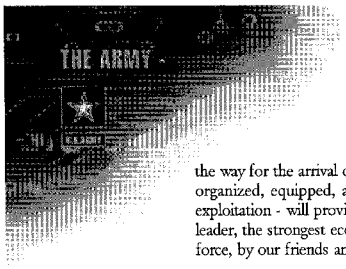
The United States is at war, and The Army serves the Nation by defending the Constitution and our way of life. It is our nonnegotiable contract with the American people - to fight and win our Nation's wars, decisively.

In the weeks immediately following the attacks of 11 September 2001, Special Operations Forces (SOF) infiltrated Afghanistan, penetrated Al Qaida and Taliban strongholds, and leveraged all available long-range, joint fires, enabling the Northern Alliance to begin dismantling the Taliban. By January 2002, U.S. and Allied conventional force reinforcements began to set the stage for Operation ANACONDA, where Soldiers, demonstrating courage and determination under the most challenging conditions, defeated Al Qaida at altitude on the escarpments overlooking the Shah-e-kot Valley.

Today, more than 198,000 Soldiers remain deployed and forward stationed in 120 countries around the globe, conducting operations and training with our friends and allies. Decisively engaged in the joint and combined fight against global terrorism, Soldiers are serving with distinction - at home and abroad. Soldiers from both the Active and the Reserve Component have remained "on point" for the Nation in the Balkans for seven years, in Saudi Arabia and Kuwait for 12 years, in the Sinai for 21 years, and in Korea and Europe for over 50 years. At the publication of this Army Posture Statement, there were more than 110,000 Reserve Component Soldiers mobilized for active federal service in support of Operation NOBLE EAGLE and Operation ENDURING FREEDOM. Even as we transform, Soldiers will remain ready to answer the calls of the Nation to defeat well-trained, determined, and dangerous adversaries who miscalculate in taking on the best led, the best-equipped, and the best-trained army in the world.


101st Airborne Division (Air Assault)
Kandahar, Afghanistan

At war and transforming, The Army is accelerating change to harness the power of new technologies, different organizations, and revitalized leader development initiatives to remain at the head of the line. To accomplish this, Army Transformation advances along three major axes towards attainment of the Objective Force. We selectively recapitalize and modernize today's capabilities to extend our overmatch in staying ready to defend our homeland, keep the peace in areas important to the Nation, and win the war against global terrorism. Stryker Brigade Combat Teams - our Interim Force - will bridge the current operational gap between our rapidly-deployable light forces and our later-arriving heavy forces, paving



the way for the arrival of the Objective Force. By 2010, The Army's Objective Force - organized, equipped, and trained for ground dominance, cyber-warfare, and space exploitation - will provide the Nation the capabilities it must have to remain the global leader, the strongest economy in the world, and the most respected and feared military force, by our friends and allies and our enemies, respectively.

The surprise attacks against our Nation and Operation ENDURING FREEDOM, in response to those attacks, validated The Army Vision and provided momentum to our efforts to transform ourselves into an instrument of national power that provides full spectrum operational capabilities that are strategically responsive and capable of decisive victory. In a little over three years, we have begun to realize The Army Vision - *People, Readiness,* and *Transformation.*

The transforming Army is enriching as a profession and nurturing to families whose sacrifice has borne the readiness of the force for the past 10 years. Our Well-Being initiatives are our commitment to reverse this trend by giving our people the opportunity to become self-reliant; setting them up for personal growth and success; aggressively investing in family housing; and revitalizing Single-Soldier living space in our barracks. Our manning initiatives have filled our line divisions and other early deploying units to dampen the internal turbulence of partially filled formations and help put a measure of predictability back into the lives of our families.

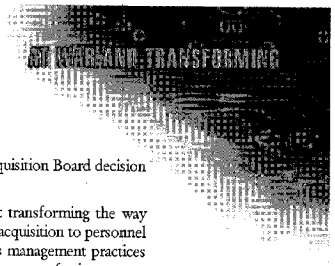
The Army has carefully balanced the risk between remaining ready for today's challenges and preparing for future crises. With unwavering support from the Administration, the Congress, our Soldiers, and Department of the Army Civilians, The Army has made unprecedented progress in its efforts to transform.

We will achieve Initial Operating Capability (IOC) for the first Stryker Brigade Combat Team (SBCT) this summer and demonstrate the increased responsiveness, deployability, agility, verastility, lethality, survivability, and sustainability that SBCTs provide to Combatant Commanders. In a little over three years from initial concept to fielded capability, the SBCTs will allow us to glimpse the potential for acquisition reform in paving the way for delivery of the Objective Force.

We have constructed the framework for achieving the Objective Force this decade: a Transformation Campaign Plan with Roadmap; the Objective Force White Paper; the Operational and Organizational plans for the Objective Force Unit of Action; and the Operational Requirements Document for the Future Combat System of Systems.

Additionally, The Army is poised to fill ground maneuver's most critical battlefield deficiency - armed aerial reconnaissance - with Comanche, a capable, survivable, and sustainable aircraft that is a cornerstone of the Objective Force.

All along the way, we have tested our concepts in wargames and experiments, checked and rechecked our azimuth to the Objective Force weekly and monthly, and look forward



to a successful Future Combat System Milestone B Defense Acquisition Board decision in May of this year.

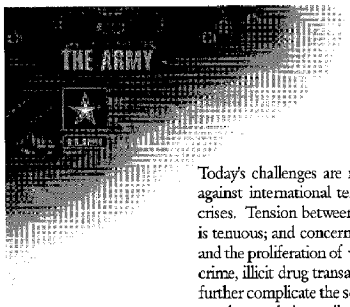
However, we cannot accelerate Army Transformation without transforming the way The Army does business - from transformation of logistics and acquisition to personnel and installation transformation. Revolutionizing Army business management practices achieves the best value for taxpayers' dollars; conserves limited resources for investment in People, Readiness, and Transformation; enhances management of personnel systems, installations and contracting; and augments our potential to accelerate arrival of the Objective Force. Changing The Army is first about changing the way we think, and better business practices represent practical application of common sense initiatives that best serve The Army and our Nation.

We are proud of our progress. We are grateful for the strong Congressional support that has helped put The Army on its approach march to the Objective Force. The Army 2003 Posture Statement describes our tremendous progress in Transformation - an orchestrated campaign, synchronized with OSD and Joint Transformation, to achieve the Objective Force and keep America's Army the dominant landpower in the world.

THE STRATEGIC ENVIRONMENT - THE REQUIREMENT TO TRANSFORM

During the last two decades of the 20th Century, information-age technologies dramatically changed the political, economic, and military landscapes. DESERT SHIELD, DESERT STORM, and operations in Kuwait, Bosnia, and Kosovo illustrated the requirement for transforming our forces to meet the evolving, strategic requirements of our Nation. Survivable and extremely lethal, our heavy forces effectively met the requirements for which they were designed; yet, they were slow to deploy and difficult to sustain. Conversely, our light forces were rapidly deployable, but they lacked the protection, lethality, and tactical mobility that we seek across the spectrum of military operations. We were successful in winning the Cold War and, as a result, smaller than we had been in 40 years. The Army no longer had the luxury of specialized forces built to confront a single and narrowly defined threat like the Warsaw Pact countries.

Task Force Panther, Qalat, Afghanistan



Today's challenges are more complex; threats are elusive and unpredictable. The fight against international terrorism has overshadowed, but not eliminated, other potential crises. Tension between India and Pakistan persists; stability between China and Taiwan is tenuous; and concern over North Korea escalates. Threats of transnational terrorism and the proliferation of weapons of mass destruction (WMD) - often financed by organized crime, illicit drug transactions, trafficking in women and children, and the sale of arms - further complicate the security environment. Geopolitical trends such as scarce resources, youth population-spike in underdeveloped countries, aging populations in developed countries, and the growth of mega-cities, among others, presage a future strategic environment of diverse and widely distributed threats.

Fully appreciating the internal and external difficulties that profound change engenders, we assessed the operational challenges of the new century against the capabilities of our Cold War Army, recognized the opportunity to leverage the inherent combat power of the technological revolution, and set a clear path ahead - The Army Vision.

The 2002 National Security Strategy (NSS) reaffirms our military's highest priority - defending the United States. To do this effectively, we assure our allies and friends; dissuade future military competition; deter threats against U.S. interests, allies, and friends; and decisively defeat any adversary, if deterrence fails. The NSS directs the military to transform to a capabilities-based force ready to respond to unpredictable adversaries and security crises. The Objective Force meets these NSS requirements, and Army Transformation will enhance our ability to conduct rapid and precise operations, achieve decisive results at the time and place of our choosing, and safeguard the Nation's ability to exercise our right of self-defense through preemption, when required.

The 2001 Quadrennial Defense Review describes a capabilities-based approach to defense planning that provides broader military options across the operational spectrum, from pre- to post-conflict operations. The force-sizing construct - 1-4-2-1 - takes into account the number, scope and simultaneity of tasks assigned the military: it sizes the force for defense of the U.S. homeland (1), forward deterrence in four critical regions (4), the conduct of simultaneous warfighting missions in two regions (2) - while preserving the President's option to call for decisive victory in one of those conflicts (1) - and participation in multiple, smaller contingency operations.

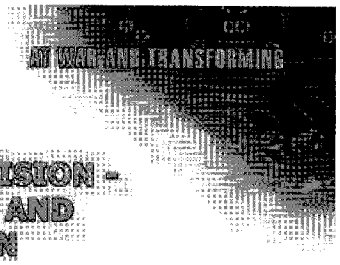
THE ARMY - SERVING TODAY, BALANCING RISK, MANAGING TRANSFORMATION

Soldiers are the most precise and responsive means to strike and then control enemy centers of gravity on the ground - where people live, work, and govern. American Soldiers are disciplined, professional, and trained for success in diverse missions; they are the foundation of a flexible force that accomplishes its missions in the non-linear battlespace by integrating new, innovative technologies and techniques with current systems and doctrine. Our people adapt under the harshest conditions, whether in the deserts of

Kuwait and the Sinai, the mountains and rice paddies of Korea, or the tropics of the Democratic Republic of Timor-Leste.

These demanding commitments mean we must nurture a balance between current and near-term readiness and our Transformation to meet future challenges. The Army has accepted reasonable operational risk in the mid-term in order to fund our Transformation to the Objective Force. To avoid unacceptable risk, we are monitoring closely the current operational situation as we support the Combatant Commanders in the war against terror, conduct homeland defense, and prosecute the long-term effort to defeat transnational threats. We have designed and implemented the Strategic Readiness System (SRS) to provide a precision, predictive tool with which to monitor The Army and make appropriate adjustments to preserve current readiness. Our surge capacity in the industrial base further reduces current risk by keeping production lines warm and responsive. And our first Stryker Brigade Combat Team will provide the Combatant Commanders with a new capability to further mitigate operational risk - even as we transform to the Objective Force.

M-1097 Modified Avenger Fire Unit, Kodura Fora, Kosovo



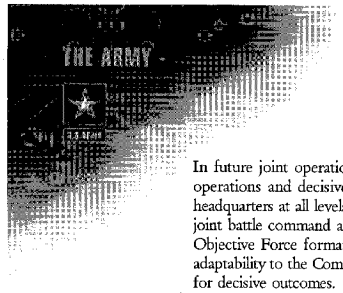
REALIZING THE ARMY VISION - PEOPLE, READINESS, AND TRANSFORMATION

In 1999, The Army announced its vision to transform into a more strategically responsive force, dominant across the full spectrum of military operations. The Army Vision addresses three essential components: *People, Readiness,* and *Transformation.* Soldiers are the heart of The Army, the centerpiece of our formations, and the foundation of our combat power. Readiness remains our overarching imperative; it is the means by which we execute our nonnegotiable contract with the American people - to fight and win our Nation's wars, decisively. To preserve readiness while rapidly changing, Transformation advances on three major axes: preserving our Army legacy by maintaining readiness and dominance today; bridging the operational gap with Stryker Brigades - the Interim Force; and fielding the Objective Force this decade to keep The Army dominant in the years beyond this decade.


Operation Mountain Sweep, Afghanistan

Realizing The Army Vision requires the concerted effort of the entire Army, across all components - from warfighting to institutional support organizations. The Army published its Transformation Campaign Plan in April 2001 to synchronize and guide this complex undertaking. The November 2001 Objective Force White Paper describes the advanced capabilities and core technologies needed to build the Objective Force. The Army's June 2002 Army Transformation Roadmap defines Transformation as a continuous process - with specific waypoints - that increases our contributions to the Joint Force while achieving the six Department of Defense (DoD) critical operational goals. The result will be a more strategically responsive and full spectrum dominant force capable of prompt and sustained land combat operations as a member of the joint force.

In support of the emerging joint operational concepts and architectures, The Army - as the major landpower component - continues to develop ground concepts for a full spectrum, and multidimensional force. These concepts are producing a Joint Force that presents potential enemies with multiple dilemmas across the operational dimensions - complicating their plans, dividing their focus, and increasing their chances of miscalculation.



In future joint operations, Objective Force units will be capable of directing major operations and decisive land campaigns with Army headquarters. Objective Force headquarters at all levels will provide the Joint Force Commander (JFC) with seamless, joint battle command and decision superiority. The modularity and scalability of our Objective Force formations will provide an unprecedented degree of flexibility and adaptability to the Combatant Commander - providing the right force at the right time for decisive outcomes.

PEOPLE - OUR MOST VALUABLE RESOURCE

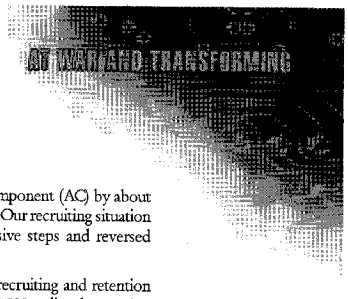
The Army Vision begins and ends talking about people. People are central to everything else we do in The Army. Platforms and organizations do not defend this Nation; people do. Units do not train, stay ready, grow and develop leadership - they do not sacrifice and take risks on behalf of the Nation. People do. Institutions do not transform; people do. People remain the engine behind all of our magnificent moments as an Army, and the well-being of our people - the human dimension of our Transformation - is inextricably linked to Army readiness.


101st Airborne Division, Afghanistan

In our Vision, we recommitted ourselves to doing two things well each and every day - training Soldiers and civilians and growing them into competent, confident, disciplined, and adaptive leaders who succeed in situations of great uncertainty. We are dedicated to preparing our Soldiers to lead joint formations, to enabling our headquarters to command and control joint forces, and to providing to those joint formations the capabilities only The Army can bring to the fight: the ability to control terrain and populations.

MANNING THE FORCE

The objective of our manning strategy is to ensure we have the right people in the right places to fully capitalize on their warfighting expertise - this is The Army's commitment to the Nation, Army leaders, Soldiers, and our families. Correctly manning our units is vital to assuring that we fulfill our missions as a strategic element of national policy; it enhances predictability for our people; and it ensures that leaders have the people necessary to perform their assigned tasks. In FY00, we implemented a strategy to man our forces to 100% of authorized strength, starting with divisional combat units. The program expanded in FY01 and FY02 to include early deploying units. In FY02, we maintained our manning goals and continued to fill our Divisions, Armored Cavalry Regiments, and selected Early Deploying Units to 100% in the aggregate, with a 93-95% skill and grade-band match. We remain on target to accomplish our long-term goal of filling all Army units to 100% of authorized strength.



Recruiting and Retaining the Force

In 1999, The Army missed its recruiting goals for the Active Component (AC) by about 6,300 inductees, and for the Reserve Component by some 10,000. Our recruiting situation was simply unacceptable, and we committed ourselves to decisive steps and reversed that trend.

In FY02, The Active Component achieved 100% of its goal in recruiting and retention - for the third consecutive year. The Army exceeded its AC 79,500 enlisted accession target in FY02 and exceeded our aggregate FY02 retention objective of 56,800 Soldiers in all three categories by 1,437. We are poised to make the FY03 accession target of 73,800, and we expect to meet our Active Component FY03 retention target of 57,000. The FY04 accession target is set at 71,500 (Addendum B).

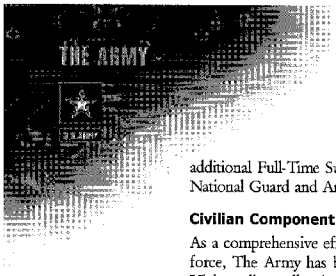
The Army Reserve has met mission for the last two years, and its recruiting force is well structured to meet FY04 challenges. The Army Reserve continues to maintain a strong Selected Reserve strength posture at 205,484 as of 17 January 2003 - over 100.2% of the FY03 End Strength Objective. Overcoming many recruiting and retention challenges in FY02, the Army National Guard (ARNG) exceeded endstrength mission, accessions were 104.5% of goal, and we exceeded reenlistment objectives.


Re-enlistment, Kandahar, Afghanistan

To ensure that we continue to recruit and retain sufficient numbers, we are monitoring the current environment - GWOT and frequent deployments - to determine impact on morale, unit cohesiveness, combat effectiveness, and support of Well-Being programs that draw quality people to The Army. We continue to examine innovative recruiting and retention initiatives. The challenges we face in FY03 and 04 are two-fold: increase recruiter productivity and recruiting resources necessary to maintain recruiting momentum when the economy becomes more robust. Resourcing recruiting pays dividends well beyond accessions in the year of execution. For example, Army advertising in FY02 influenced not only FY02 accessions, but also potential recruits who will be faced with enlistment decisions in FY03 and beyond. We attribute our success to a series of programs described in *Addendum C.*

Reserve Component Full-Time Support (FTS)

Today, more than 50% of our Soldiers are in the Reserve Component (RC). The GWOT and Homeland Defense are significant undertakings that demand a high level of resourcing. The RC has been Key to our success in these operations. To ensure The Army's RC continues to meet ever-increasing demands with trained and ready units, The Army plans to increase Full-Time Support authorizations 2% each year through FY12, increasing the FTS from the current level of 69,915 to a level of 83,046. The Army recognizes



additional Full-Time Support authorizations as the number one priority of the Army National Guard and Army Reserve leadership.

Civilian Component

As a comprehensive effort to consolidate, streamline, and more effectively manage the force, The Army has begun an initiative to transform our civilian personnel system. High quality, well-trained civilians are absolutely essential to the readiness of our force and our ability to sustain operations today and in the future. Recruiting, training, and retaining a highly skilled, dedicated civilian workforce is critical in meeting our obligations to the Combatant Commanders and the Nation. Aggressive transformation of our civilian force - in which projections through FY05 indicate a 16% annual turnover due to retirements and other losses - will ensure we continue to meet those obligations.

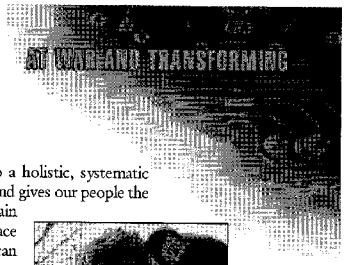
As of FY02, The Army employed 277,786 civilian personnel. To forecast future civilian workforce needs with precision, we developed the Civilian Forecasting System (CIVFORS), a sophisticated projection model that predicts future civilian personnel requirements under various scenarios. The Army is working closely with the Office of the Secretary of Defense (OSD) and other federal agencies to demonstrate the power of this system so they can fully leverage its capabilities, as well.

The Civilian Personnel Management System XXI (CPMS XXI) has identified the reforms necessary to hire, train, and grow a civilian component that supports the transforming Army. To achieve this, we have redefined the way civilians are hired, retained, and managed. Mandatory experiential assignments will become the vehicle by which we develop future leaders. CPMS XXI fully responds to current mandates in the President's Management Agenda and incorporates the results of the Army Training and Leader Development Panels. For example, two initiatives for recruiting well-trained civilians are:

- The Army Civilian Training, Education, and Development System (ACTEDS) - a centrally managed program that accesses and trains civilian interns and grows a resource pool of personnel who can accede to senior professional positions.
- The DoD Appropriations Act for FY02 and FY03 provided Direct Hire Authority (DHA) for critical, hard-to-fill medical health care occupations and enabled the reduction in average fill-time for these positions to 29 days.

ARMY WELL-BEING

The readiness of The Army is inextricably linked to the well-being of our people, and Army Well-Being is the human dimension of our Transformation. Well-Being responds to the physical, material, mental, and spiritual needs of all Army people - Soldiers, civilians, retirees, veterans, and their families. We recognize the fundamental relationship between Well-Being programs and institutional outcomes such as readiness, retention, and recruiting. To support mission preparedness as well as individual aspirations, Well-Being

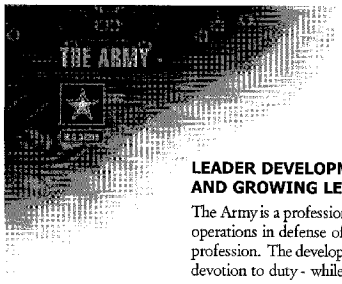


integrates policies, programs, and human resource issues into a holistic, systematic framework that provides a path to personal growth and success and gives our people the opportunity to become self-reliant. We recruit Soldiers, but we retain families - Well-Being programs help make The Army the right place to raise a family. And when our families are cared for, Soldiers can better focus on their mission - training, fighting, and winning our Nation's wars, decisively.


Returning from deployment
Ansbach, Germany

Soldiers appreciate the Nation's devotion to them, and they are grateful for the country's recognition of their service and sacrifices. Recent improvements to the Montgomery GI Bill, TRICARE for Life, TRICARE Reform, Retired Pay Reform, the 4.1% general pay increase, and additional pay increases in 2003, are all important to Soldiers and their families. These initiatives have helped The Army respond to the well-being needs of our people. Army voluntary education programs improve our combat readiness by expanding Soldier skills, knowledge, and aptitudes to produce confident, competent leaders. Other Well-Being initiatives include:

- Spouse Employment Summit. The Army is developing partnerships with the private sector to enhance employment opportunities for Army spouses and provide improved job portability for them.
- Spouse Orientation and Leader Development (SOLD). SOLD connects Army spouses and enhances their opportunity to serve as valued leaders who contribute to the readiness and future of The Army and our Nation.
- Army University Access Online. eArmyU offers Soldiers access to a variety of on-line, post-secondary programs and related educational services. www.eArmyUcom is a comprehensive web-portal widely accessible to Soldiers, including those in Afghanistan, Bosnia, and Kuwait.
- In-State Tuition. To level the playing field for access to education opportunities, The Army is working to encourage states to grant in-state status for military personnel and families at public colleges and universities in their Soldier's state of legal residence and state of assignment.
- High School Senior Stabilization. This policy enhances predictability by allowing families to request stabilization at their sponsor's current duty location if they have a child who will graduate from high school during that year.
- Secondary Education Transition Study (SETS) Memorandum of Agreement (MOA). Facilitated by The Army, this agreement among participating school superintendents is their commitment to partner and improve high school transitions for DoD children. Currently, over 110 school superintendents have signed the SETS MOA.



LEADER DEVELOPMENT - TRAINING SOLDIERS AND CIVILIANS, AND GROWING LEADERS

The Army is a profession - the Profession of Arms. Conducting decisive ground combat operations in defense of the United States and its interests is a core competency of this profession. The development of each member of The Army is the foundation of lifelong devotion to duty - while in uniform and upon returning to the civilian sector.

By its nature, our profession is extraordinarily complex and dangerous. The American people entrust The Army with the sacred responsibility to apply lethal force in defense of US interests. As such, the Profession of Arms must remain firmly grounded in constitutional values and must constantly change and grow to preserve its competitive advantage in an evolving strategic environment. At all levels, our leaders - military and civilian - must apply their professional knowledge in increasingly varied and unique situations that are characteristic of today's strategic environment. Ultimately, we must grow professional Army leaders who provide wise and discerning military judgments founded on long experience and proven professional expertise. This capacity is developed only through a lifetime of education and dedicated service - in peace and in war.


69th Air Defense Artillery Brigade, Giebelstadt Army Airfield, Germany

Soldiers serve the Nation with the full realization that their duty may require them to make the supreme sacrifice for others among their ranks. Soldiers fighting the war on terrorism today, those who will fight our future wars, and those who have fought in our past wars are professional warfighters and a precious national asset. To ensure we remain the greatest landpower in the world defending the greatest country in the world, The Army and the Nation rely upon their unique and hard-earned experiences and skills. To develop the operational skills required to defend the Nation, training must remain our number one priority.

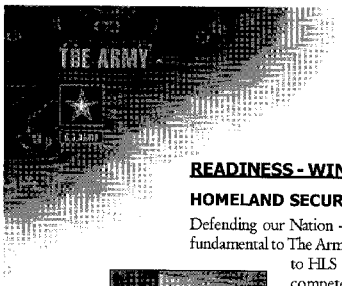
The evolving strategic environment, the gravity of our responsibilities, and the broad range of tasks The Army performs require us to review and periodically update the way we educate, train, and grow professional warfighters. The Army's strategic responsibilities to the Nation and Combatant Commanders now embrace a wider range of missions. Those missions present our leaders with even greater challenges than previously experienced. Therefore, leader development is the lifeblood of the profession. It is the deliberate, progressive, and continuous process that trains and grows Soldiers and civilians into competent, confident, self-aware, and decisive leaders prepared for the challenges of the 21st Century in combined arms, joint, multinational, and interagency operations.

In June 2000, we convened the Army Training and Leader Development Panel (ATLDP). The ATLDP's purpose is to identify skill sets required of Objective Force Soldier and civilian leaders. Further, ATLDP assesses the ability of current training and leader

development systems and policies to enhance these required skills. In May 2001, The Army Training and Leader Development Panel Phase I (Officer Study) identified seven strategic imperatives and generated 89 recommendations. With those, we validated the requirement to transform our Officer Education System (OES) - from the Officer Basic Course through the Command and General Staff Officer Course. Additionally, the panel reconfirmed the value of Joint Professional Military Education II (JPME II) in preparing our leaders for joint assignments. The most significant product of the officer ATLDP is our OES Transformation.

ATLDP Phase I (Officer Study) identified three high-payoff institutional training and education initiatives for lieutenants, captains, and majors. The first of these is the Basic Officer Leader Course (BOLC). BOLC will provide a tough, standardized, graduate-level, small-unit leadership experience for newly commissioned officers. The second of these initiatives is the Combined Arms Staff Course (CASC) for staff officers, and the Combined Arms Battle Command Course (CABCC) for company commanders. Both courses will capitalize on advanced distributed learning and intensive resident training methods. The third initiative, Intermediate Level Education (ILE), will provide all majors with the same common core of operational instruction, and it will provide additional educational opportunities that are tailored to the officer's specific career field, branch, or functional area. Beyond ILE, Army officers continue to attend Joint or Senior Service Colleges to develop leader skills and knowledge appropriate to the operational and strategic levels of the profession.

Completed in May 2002, the ATLDP Phase II (NCO Study) resulted in 78 findings and recommendations extending across six imperatives - Army culture, NCO Education Systems (NCOES), training, systems approach to training, training and leader development model, and lifelong learning. Among others, the ATLDP Phase II recommended building new training and leader development tools for NCOs to replace current methods, as required. The ATLDP Phase III (Warrant Officer Study) culminated with 63 recommendations extending across four crucial imperatives. Recommendations included clarifying the warrant officer's unique role in The Army and improving the Warrant Officer Education System (WOES) to ensure timely training and promotion. The Civilian Training and Leader Development Panel (Phase IV) study results are complete, and we are forming the Implementation Process Action Team (I-PAT). I-PAT will identify actions The Army must take to increase the professional development of our civilian workforce. At the senior leader level, The Army initiated the Army Strategic Leadership Course (ASLC). The program is aimed at teaching principles of strategic leadership, with emphasis on visioning, campaign planning, leading change, and Transformation. To date, we have completed twelve of the foundation courses and three alumni courses, training the majority of The Army's general officers.



READINESS - WINNING OUR NATION'S WARS

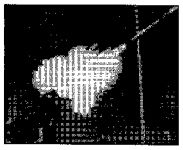
HOMELAND SECURITY (HLS)

Defending our Nation - abroad and at home - against foreign and domestic threats is fundamental to The Army's legacy, and our warfighting focus provides capabilities relevant to HLS requirements. HLS missions range from traditional warfighting competencies that defeat external threats to the non-combat tasks associated with supporting civil authorities in domestic contingencies. Operation NOBLE EAGLE mobilized over 16,000 Army National Guard Soldiers to protect critical infrastructure. These Soldiers assisted the Department of Transportation in securing our Nation's airports while also playing a vital role in securing our Nation's borders. The Army is moving forward to provide one Civil Support Team (CST) to each state, as required by the National Defense Authorization Act for FY03. The CSTs support Incident Commanders and identify Chemical, Biological, Radiological, Nuclear, and Explosive (CBRNE) agents and substances, assess current and projected consequences, advise on response measures, and assist with appropriate requests for additional support. To date, OSD has certified 30 of 32 teams, and The Army is working to establish additional teams. Collectively, the certified teams have performed 890 operational missions since 11 September 2001. The Army remains committed to HLS, dedicating Active Component (AC) and Reserve Component (RC) staffs to focus on training, doctrine, planning, and execution of DoD missions in support of civil authorities.

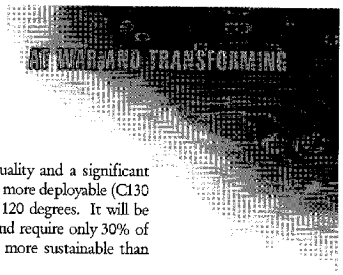

Homeland Security,
Salt Lake City, UT

Missile Defense

Robust Missile Defense is a vital warfighting requirement that protects both our homeland and our deployed forces. Missile Defense includes far more than a reactive capability to shoot down missiles in their reentry phase. Missile Defense requires a coherent system of sensors; battle command; weapons systems; and active, passive, proactive, and reactive operational concepts, all aimed at destroying enemy missiles - not only during their reentry phases. Missile Defense must also be able to destroy enemy missiles on the ground, before they launch or during their boost phase once launched. Missile Defense is inherently a joint capability to which The Army is a major contributor.


MIM-104
Patriot Air Defense Missile

The Army is deploying and employing Ground Mobile Defense (GMD) assets to contribute to this warfighting capability, accelerating the fielding of the Patriot Advanced Capability 3 (PAC3) system, and developing directed energy weapons that will bring new defense measures to The Army and the Nation. We are postured to assume control of the Medium Extended Air Defense System (MEADS) program in FY03 and intend to begin fielding by FY12.



MEADS is a transformational program of Objective Force quality and a significant improvement on Patriot's capabilities. It will be more mobile and more deployable (C130 capable) than Patriot and cover a 360-degree radius to Patriot's 120 degrees. It will be effective against low radar, cross section cruise missile targets; and require only 30% of Patriot's manpower. And MEADS will be more accurate and more sustainable than Patriot.

Chemical Demilitarization

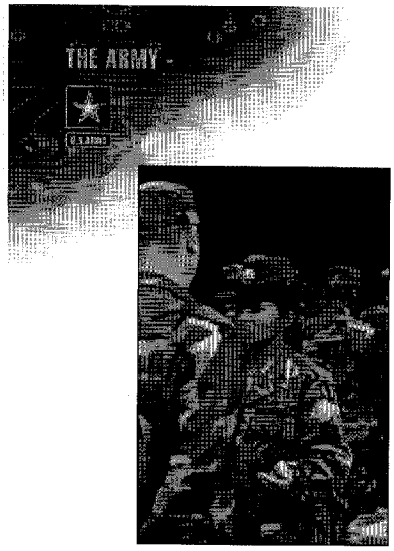
In Section 1412 of Public Law 99-145, Congress directed the DoD to destroy the United States' chemical weapons stockpile. In turn, the Secretary of Defense delegated management of all chemical munitions disposal to the Department of the Army. On November 29, 2000, the Johnston Atoll Chemical Agent Disposal System, using incineration-based technology, completely destroyed the last stockpiles stored at the Atoll, and closure operations began in January 2001. The Tooele Chemical Agent Disposal Facility has incinerated 44% of the chemical agents and 81% of the munitions stored there. Disposal operations at these two sites destroyed 30% of the total U.S. chemical weapons stockpiles. Construction of incineration facilities at Anniston, Alabama; Umatilla, Oregon; and Pine Bluff, Arkansas, is complete. Systemization activities are on-going at Aberdeen, Anniston, Umatilla, and Pine Bluff. The plan to accelerate the disposal of bulk agents using a neutralization process at Aberdeen, Maryland, and Newport, Indiana, has been approved. Anniston and Aberdeen are scheduled to start destruction in second quarter FY03, and Newport is scheduled to begin in first quarter FY04.

To comply with treaty agreements and the Congressional mandate, we must complete the destruction of these weapons by 2007. The treaty allows for a one time, five-year extension to this deadline. With continued funding and minimal schedule changes, we will safely destroy the U.S. stockpile of lethal chemical agents and munitions at eight existing CONUS sites.

TRAINING THE FORCE

In October 2002, The Army released *Field Manual (FM) 7-0, Training the Force*. Synchronized with other field manuals and publications being updated to respond to changes in Army, joint, multinational, and interagency operations, FM 7-0 is the capstone doctrinal manual for Army training and leader development. It provides the developmental methodology for training and growing competent, confident Soldiers, and it addresses both current and future Objective Force training requirements.

We are transforming the way we fight future wars, and The Army is participating fully in a DoD-sponsored program to transform how forces train to fight. This effort involves four major initiatives: building upon existing service interoperability training; linking component and joint command staff planning and execution; enhancing existing joint training exercises to address joint interoperability; and studying the requirement for



120th Adjutant General Battalion (Reception), Fort Jackson, SC

dedicated joint training environments for functional warfighting and complex joint tasks. The Army is scheduled to host the first joint National Training Center (NTC) event at Fort Irwin, California, in May 2003. During June 2003, the U.S. Army Forces Command will execute the 2nd joint NTC event - JCS exercise ROVING SANDS.

During the late 1990s, funding for the recapitalization and modernization of The Army's Combat Training Centers (CTCs) was reduced, eroding their capability to support their critical missions. Additionally, the Multiple Integrated Laser Engagement System (MILES) equipment and current force instrumentation systems have become difficult to maintain. The Army's CTC modernization program will ensure that our premier training areas (NTC at Fort Irwin, Combat Maneuver Training Center (CMTC) in Germany, the Joint Readiness Training Center (JRTC) at Fort Polk, and the Deep Attack Center of Excellence near Gila Bend, AZ) are modernized to provide high quality, realistic, full-spectrum joint training. To address these problems, The Army will invest nearly $700M over the next six years to modernize these training centers.

OPTEMPO

In accordance with Congressional directives, The Army developed a new methodology to prepare budget requests that accurately reflect Operations and Maintenance requirements. In the report submitted in July 2002, The Army outlined updated processes that ensure consistency in reporting of tank miles and reflect requirements and execution with more precision. Management controls initiated in FY01 to prevent migration of OPTEMPO funds to other areas were highly successful and remain in effect.

M1 Abrams Tanks, Udari Range, Kuwait

The Army's combined arms training strategy determines the resourcing requirements to maintain the combat readiness of our forces. For the Active Component, The Army requires 800 ground OPTEMPO miles per year for the M1 Abrams tank and corresponding training support; the Active Component flying hour program requires an average of 14.5 live flying hours per aircrew each month. Both Army National Guard and the Army Reserve aircrew training strategies require 9.0 hours per crew each month. The ARNG ground OPTEMPO requirement is a

composite average of 174 miles in FY04, and the USAR ground OPTEMPO requirement is 200 tank-equivalent miles in FY04.

While this describes The Army's training strategy, actual execution levels from unit to unit have varied depending upon factors such as on-going operations, safety of flight messages, and adequate manning of combat formations. To this end, The Army has fully funded its AC ground OPTEMPO requirement, while its AC flying program is funded to its historical execution level of 13.1 flying hours. The RC air and ground OPTEMPO are similarly funded to their execution levels, rather than their requirement. Although The Army has not always been able to execute the training strategy, we have taken steps to have all units execute the prescribed training strategy in FY03, FY04, and beyond.

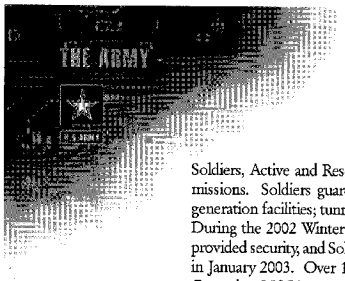
FORCE PROTECTION AND ANTITERRORISM

Force protection consists of those actions to prevent or mitigate hostile actions against Department of Defense personnel and includes family members, resources, facilities, and critical information. In the war on terrorism, the area of operations extends from Afghanistan to the East Coast and across the United States. Naturally, Force Protection and Antiterrorism measures have increased across Army installations in the Continental United States (CONUS) and overseas.

M-252 Mortar

Findings from the Cole Commission, the Downing Report on the Khobar Towers bombing, and Army directives to restrict access to installations have all led to thorough assessments by the Department of the Army Inspector General, the Deputy Chief of Staff for Operations, and commanders. Our efforts focus on improved force protection policy and doctrine; more rigorous training and exercises; improved threat reporting and coordination with national intelligence and law enforcement agencies; enhanced detection and deterrence capabilities for Chemical, Biological, Radiological, Nuclear, and Explosive (CBRNE) threats; increased capabilities and protection for access control; and expanded assessments of Major Commands (MACOM) and installation force protection programs. Both operational and installation environments rely upon secure, networked information infrastructure to execute daily enterprise-wide processes and decision-making, so the parameters of force protection include contemporary and evolving cyber threats, as well.

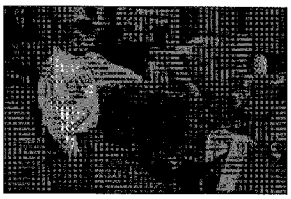
The Army's Information Systems Security Program (ISSP) secures The Army's portion of the Global Information Grid (GIG), secures the digitized force, and supports information superiority and network security defense-in-depth initiatives. ISSP provides the capability to detect system intrusions and alterations and react to information warfare attacks in a measured and coordinated manner. To the greatest extent possible, it protects warfighters' secure communications - from the sustaining base to the foxhole.



Soldiers, Active and Reserve, are heavily engaged in force protection and anti-terrorism missions. Soldiers guard military installations, nuclear power plants, dams and power generation facilities; tunnels, bridges, and rail stations; and emergency operations centers. During the 2002 Winter Olympics in Salt Lake City, Utah, nearly 1,500 ARNG Soldiers provided security, and Soldiers guarded key infrastructure sites during Super Bowl XXXVII in January 2003. Over 12,500 Reserve Component Soldiers are currently mobilized for Operation NOBLE EAGLE to fulfill Force Protection requirements, and in February 2003, over 8,000 Army National Guard Soldiers will support Air Force security requirements - a requirement that could reach 9,500 Soldiers. Security of detention facilities and detainees at Guantanamo Bay Detention - a long-term detainee mission - requires approximately 1500 Army personnel, 50% of whom are Military Police. Army Reserve Internment and Resettlement battalions on 6-month rotations impact military police availability to CONUS Force Protection requirements.

SUSTAINMENT

The Army is revolutionizing its logistics process. One initiative, the Single Stock Fund (SSF), redirected more than $540M worth of secondary items from stocks to satisfy customer demands between May 2000 - SSF inception - and November 2002. During that same period, we redistributed more than $218M worth of secondary items from the authorized stockage levels to meet higher priority readiness requirements. By extending national visibility of stockage locations and capitalizing inventories into the Army Working Capital Fund, we reduced customer wait time by an average of 18.5%. The SSF will continue to reduce inventory requirements and generate even more savings for The Army by creating greater flexibility for the management of inventories.

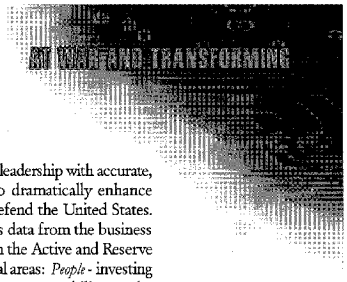


National Maintenance Program, Fort McCoy, Wisconsin

Another initiative, the National Maintenance Program (NMP), enhances weapon system readiness, reliability, and availability rates by bringing Army Class IX repair parts to a single national standard. Ultimately, increased reliability will reduce overall weapon system Operating and Support cost. Additionally, the NMP centralizes the management and control of Army maintenance activities for components and end items. NMP will produce appropriately sized Army maintenance capacity that still meets total maintenance requirements.

STRATEGIC READINESS REPORTING

The National Defense Authorization Act for FY99 requires the Secretary of Defense to implement a comprehensive readiness reporting system that objectively measures readiness to support the NSS. The Army's Strategic Readiness System (SRS) responds to and provides a baseline in achieving this critical initiative.



SRS is a precision readiness measurement tool that provides Army leadership with accurate, objective, predictive, and actionable readiness information to dramatically enhance resource management toward one end - strategic readiness to defend the United States. The Army Scorecard - a product of SRS - will integrate readiness data from the business arena and the operating, generating, and sustaining forces of both the Active and Reserve Component. Army Scorecard methodology focuses on four critical areas: *People* - investing in Soldiers and their families; *Readiness* - maintaining the support capability to the Combatant Commanders' operational requirements; *Transformation* - transforming The Army into the Objective Force; and application of *sound business practices.*

SRS markedly improves how we measure readiness. It gathers timely information with precision and expands the scope of the data considered. We are further developing this system to leverage leading indicators and predict trends - solving problems that affect readiness *before* they become problems, from well-being to weapons platforms. SRS will help enable The Army preserve readiness to support Combatant Commanders, invest in Soldiers and their families, identify and adopt sound business practices, and transform The Army to the Objective Force.

INSTALLATIONS

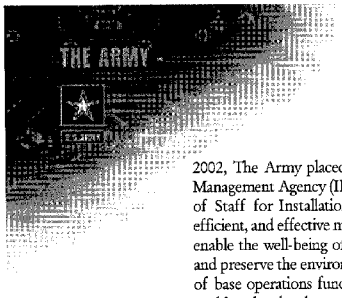
Army installations are our Nation's power projection platforms, and they provide critical training support to The Army and other members of the joint team. Additionally, Soldiers, families, and civilians live and work on Army installations. The quality of our infrastructure directly affects the readiness of The Army and the well-being of our Soldiers, families, and civilians.


10th Area Support Group, Okinawa, Japan

The Army has traditionally accepted substantial risk in infrastructure to maintain its current warfighting readiness. However, a decade of chronic under funding has led to a condition in which over 50% of our facilities and infrastructure are in such poor condition that commanders rated them as "adversely affecting mission requirements." Our facilities maintenance must improve. Over the past two years, with the help of the Administration and Congress, The Army has begun to rectify this situation with significant increases in funding and innovative business practices. These efforts have been dramatically successful as we continue to correct a problem that was 10 years in the making. Thus, in an effort to prevent future degradation of our facilities, The Army has increased its funding for facilities sustainment to 93% of requirement beginning in FY04.

Transformation of Installation Management (TIM)

Recognizing the requirement to enhance support to commanders, the Secretary of the Army directed the reorganization of The Army's management structure. On October 1,

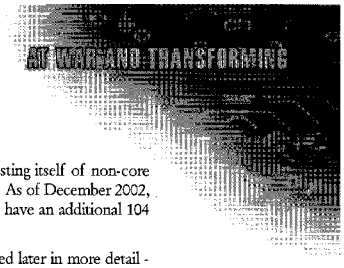


2002, The Army placed the management of Army installations under the Installation Management Agency (IMA). IMA is a new field-operating agency of the Assistant Chief of Staff for Installation Management (ACSIM). Its mission is to provide equitable, efficient, and effective management of Army installations worldwide to support readiness; enable the well-being of Soldiers, civilians and family members; improve infrastructure; and preserve the environment. This new management approach eliminates the migration of base operations funds to other operational accounts below the HQDA level. It also enables the development of multi-functional installations to support evolving force structure and Army Transformation needs. The Army is poised to capitalize on opportunities IIM gives us to provide excellence in installations.

Two programs that significantly increase the well-being of our Soldiers and their families are the Barracks and the Family Housing programs. The Army established the Barracks Upgrade Program (BUP) in the late 1990's to improve single Soldiers' housing conditions. Through 2002, we have upgraded or funded-for-upgrade 70% of our permanent party barracks to Soldier suites that consist of two single bedrooms with a shared bath and common area. The Army will continue the BUP until all permanent party barracks achieve this standard.

With the strong support of Congress, The Army established the Residential Communities Initiative (RCI) for our families. This program capitalizes on commercial expertise and private capital to perform a non-core function for The Army - family housing management. The program provides greater value to The Army by eliminating the housing deficit at our first eleven sites, while leveraging a $209M Army investment into $4.1B of initial private development. The Army's privatization program began with four pilot projects and will expand to 18 active projects by the end of FY03. Pending OSD and Congressional approval, 28 projects are planned through 2006 that will impact over 72,000 housing units or 80% of Army Family Housing in the United States. By the end of 2007, we will have the programs and projects in place to meet the OSD goal of eliminating inadequate family housing. We will accomplish this goal through RCI and increased Army investment in family housing Military Construction (MILCON) at non-privatized installations. The Reserve Component (RC) enhances RCI through real property exchange authority that is only available to the RC. This legislative authority allows the exchange of RC owned property with public or private entities and has a tremendous potential to improve future Reserve Component infrastructure at no governmental cost.

The Army has also aggressively reduced its financial burden and physical footprint by disposing of 34% of its facilities from a 1990 high of 116 billion square feet. The Army anticipates that the Congressional FY05 Base Realignment and Closure (BRAC) authority will permit additional appropriate reductions. BRAC will enable The Army to dispose of excess infrastructure and realign the remaining facilities with the requirements of the transforming Army and the Objective Force. BRAC will also allow The Army to re-allocate resources from closed or realigned installations to other high priority requirements.



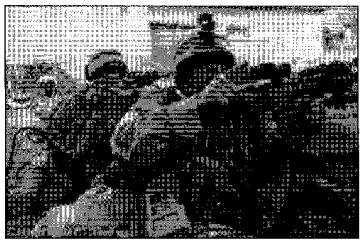
The Army continues to improve its utilities infrastructure by divesting itself of non-core utility systems' operation and maintenance through privatization. As of December 2002, we had privatized 64 of the 351 systems in the program, and we have an additional 104 presently under negotiation.

As part of our Army Knowledge Management (AKM) - described later in more detail - we are modernizing our Installation Information Infrastructure - *infostructure* - to support a network centric, knowledge-based Army. The Installation Information Infrastructure Modernization Program (I3MP) executes a multi-year, $3.2B program for upgrades to optical fiber and copper cable, installation of advanced digital equipment, and upgrades to Defense Global Information Grid gateways. This program will ensure worldwide, high-speed data connectivity at Army installations. To date, we have completed 22 of 95 CONUS installations and initiated upgrades at four installations outside of the continental United States (OCONUS). We plan to complete I3MP in 2009.

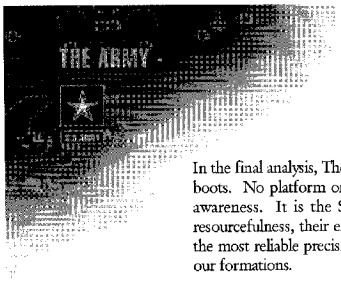
TRANSFORMATION - CHANGING THE WAY WE FIGHT

The Army is fundamentally changing the way we fight and creating a force more responsive to the strategic requirements of the Nation. We are building a joint precision maneuver capability that can enter a theater at the time and place of our choosing, maneuver at will to gain positional advantage, deliver precise joint fires and, if necessary, close with and destroy the enemy.

The Objective Force is an army designed from the bottom up around a single, networked, integrated C4ISR architecture that will link us to joint, interagency, and multi-national forces. It will be a rapidly deployable, mounted formation, seamlessly integrated into the joint force and capable of delivering decisive victory across the spectrum of military operations. Consolidated, streamlined branches and military operational specialties comprised of professional warfighters will be poised to transition rapidly from disaster relief to high-end warfighting operations.

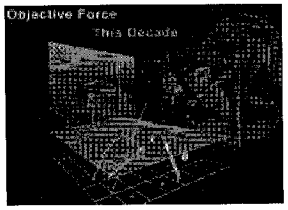

82nd Airborne Division, Gangikehl, Afghanistan

The Objective Force and its Future Combat System of Systems will leverage and deliver with precision the combat power of joint and strategic assets. It is a capabilities-based force that rapidly responds to the requirements of the strategic environment in which our Soldiers will be the most strategically relevant and decisively capable landpower - no matter the mission, no matter the threats, no matter the risks.



In the final analysis, The Army's combat power does not wear tracks or wheels - it wears boots. No platform or weapon system can match a Soldier's situational curiosity and awareness. It is the Soldiers' ability to discern and to think, their ingenuity and resourcefulness, their endurance and perseverance, and their plain grit that make them the most reliable precision weapon in our inventory. Soldiers remain the centerpiece of our formations.

To help guide our Transformation efforts, The Army leverages lessons-learned from extensive experimentation and wargaming. We are working to harness the power of knowledge, the benefits of science and technology, and innovative business solutions to transform both the Operational and Institutional Army into the Objective Force. The Army's annual Title 10 Wargames provide critical insights for developing the Objective Force. Likewise, results from joint experiments - Millennium Challenge '02 and other service Title 10 Wargames like Global Engagement, Navy Global, and Expeditionary Warrior, to name a few - also inform these efforts.



The Army is fully committed to joint experimentation as a means to examine and assess Objective Force contributions to the strategic, operational, and tactical levels of joint warfare. The Army has established a joint / Army Concept Development and Experimentation (CD&E) Task Force to ensure that Army CD&E efforts are synchronized with joint CD&E. This task force makes certain that joint experiment lessons-learned inform the design and development of the Objective Force. This year, The Army's Title 10 Wargame - co-hosted by Commander, Joint Forces Command - will focus on the Joint Force that will fight the next battle. Linked to Joint Forces Command's Pinnacle Impact 03 experiment, it will be conducted within the context of a future 1-4-2-1 global scenario and the emerging Joint Operations Concept. The Army is committed to these efforts, and in this budget we have nearly doubled last year's funding of these exercises.

Joint, interagency, multinational, and Army warfighting experiments provide invaluable opportunities for The Army to experiment with innovative approaches to warfighting and to test new tactics, techniques, procedures, organizations, processes, and technology. In Millennium Challenge 2002, the largest joint experiment in U.S. history, The Army demonstrated four vital capabilities it brings to the joint fight:

- the ability to attain and maintain information superiority (knowledge)
- the ability to conduct decisive maneuver to enable dominant joint maneuver
- the ability to defeat the opposition in an anti-access environment through rapid entry and employment capabilities

- the ability to support and sustain rapid combat power efficiently by reducing the operational and tactical logistics footprint

To evaluate the effectiveness of the Stryker Brigade Combat Team (SBCT) concepts for battalion and company operations in a Joint Force, The Army employed a SBCT unit during Millennium Challenge. Less than four weeks after Stryker vehicles were delivered to the first unit at Fort Lewis, the unit demonstrated rapid air and sealift deployability and integrated into the exercise well. Additionally, when given a mission on short notice to support a Marine Corps unit in ground operations, the SBCT unit demonstrated its agility and versatility.

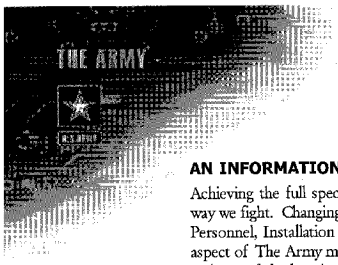
BALANCING RISK AS WE MANAGE CHANGE

Balancing risk is integral to Army Transformation. To maintain current readiness while we transform, we are managing operational risk: risk in current readiness for near-term conflicts with future risk - the ability to develop new capabilities and operational concepts that will dissuade or defeat mid- to long-term military challenges. The Army has accepted risk in selective modernization and recapitalization, and we continue to assess these risks as we balance current readiness, the well-being of our people, Transformation, the war on terrorism, and new operational commitments. Since 1999, The Army has terminated 29 programs and restructured 20 others for a total savings of $12.8B. These funds were reallocated to resource the Stryker Brigades and essential Objective Force research and development.

In Program Budget 2004 and its associated Five-Year Defense Plan (FYDP), The Army has generated an additional $22B of savings by terminating 24 additional systems and reducing or restructuring 24 other systems. To accelerate achieving the Objective Force capabilities and mitigating operational risk, The Army reinvested these savings in the development of transformational capabilities in these and other programs:

- Future Combat System - $13.5B
- Precision Munitions - $3.2B
- Sensors and Communications - $2.3B
- Science and Technology - $1.1B
- Missile and Air Defense - $1.1B

The operational risk associated with the decreased funding for certain current programs is acceptable as long as we field Stryker Brigades on schedule and accelerate the fielding of the Objective Force for arrival, this decade. We will continue to reassess the risk associated with system reductions and related organizational changes against operational requirements and the strategic environment.



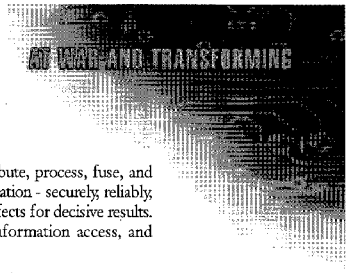
AN INFORMATION ENABLED ARMY

Achieving the full spectrum dominance of the Objective Force requires changing the way we fight. Changing the way we fight requires a holistic transformation of Logistics, Personnel, Installation Management, Acquisition, Aviation, business practices - every aspect of The Army must transform. The Objective Force requires innovative changes and out-of-the-box ingenuity in the way we take care of our people and manage the information and material that enhances their readiness and answers their needs - both personal and professional, at home and in the short sword warfight at foxhole level. Simply put, we cannot achieve the Objective Force capabilities without leveraging the full potential of the technological advances that our Nation's industrial base and science and technology communities are developing. The Army has consolidated management of Information Technologies (IT) into a single effort - Army Knowledge Management (AKM). AKM capitalizes on IT resources unique to our Nation and harnesses them for Transformation, for The Army, and for the Combatant Commanders.


Single Channel Tactical Satellite, Narizah, Afghanistan

Information management is critical to achieving The Army Vision, and Army Knowledge Management supports Transformation through the development and implementation of a network-centric, knowledge-based Army architecture interoperable with the joint system. AKM will accelerate the Detect-Decide-Deliver planning processes and enable warfighters to *see* the adversary first - before our forces are detected; *understand* the Common Relevant Operating Picture (CROP) first; *act* against adversaries first; and *finish* the warfight with decisive victories - *see first, understand first, act first, finish decisively*. AKM will provide knowledge at the point of decision for all leaders - from the factory to the foxhole.

Enabling collaborative mission planning and execution among widely dispersed locations around the globe, Army Knowledge Management will provide a rapid and seamless flow and exchange of actionable information and knowledge. The Network-centric operations that AKM enables will decrease our logistic footprint and enhance sustainability of the Objective Force through multi-nodal distribution networks - reaching forward to the theater and back to installations. Advanced information technologies will dramatically enhance Battle Command. Command, Control, Communications, and Computer (C4) decision tools seamlessly linked to Intelligence, Surveillance, and Reconnaissance (ISR) assets produce a radically improved Common Relevant Operating Picture (CROP) and enable Battle Command.



AKM will dramatically enhance the warfighter's ability to distribute, process, fuse, and correlate unprecedented amounts of actionable data into information - securely, reliably, and quickly enough to enable leaders to synchronize and mass effects for decisive results. Network-centric operations enable information awareness, information access, and information delivery.

The Army Knowledge Enterprise (AKE) construct describes The Army's process to enable improved strategic and tactical information distribution and collaboration. In short, AKE leverages the ingenuity and resourcefulness of our people in shaping the environment to achieve dominance and helps leaders achieve decision superiority and mission efficiencies.

Integration and refinement of existing Army networks is the first step in achieving a network-centric, information-enabled force that creates efficiencies and provides secure, reliable, actionable information communications. To this end, The Army activated the Network Enterprise Technology Command (NETCOM). NETCOM is The Army's single authority assigned to operate, manage, and defend The Army's information infrastructure. NETCOM has assumed technical control of all Army networks - Active, Guard, and Reserve. This new policy allows NETCOM to evaluate any system, application, or piece of equipment that touches The Army Networks. NETCOM will improve the capacity, performance, and security of our networks at every level.

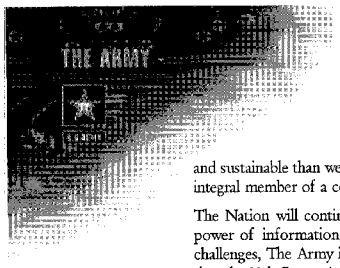
Among others, one tangible product of NETCOM is the consolidation and removal of redundant servers across The Army. This example of better business practice will harvest significant savings in resources - both dollars and managers - while increasing the effectiveness of the network. Since the first quarter FY02, we have reduced the number of servers Army-wide by 16% - 311 in the National Capitol Region alone.

Army Knowledge Online (AKO) begins to allow The Army to decentralize the management of information. AKO is The Army's secure, web-based, internet service that leverages The Army's intellectual capital to better organize, train, equip, and maintain our force. It gives our people a means to collaborate, to improve their situational awareness, and to access their personnel data. Already, hard-copy processes that formerly took days and weeks can now be accomplished almost instantly - from pay to personnel actions to assignments, to name a few. And AKO is just an early glimpse of the potential capabilities of a Network-centric, knowledge based organization that harnesses the potential of the global infostructure.

OPERATIONAL ARMY

The Objective Force

The Army is actively engaged in global operations supporting Combatant Commanders today, but it is our obligation to prepare for the future, as well. The Objective Force is The Army's future full-spectrum force that will be organized, manned, equipped and trained to be more strategically responsive, deployable, agile, versatile, lethal, survivable



and sustainable than we are today - across the full spectrum of military operations as an integral member of a cohesive joint team.

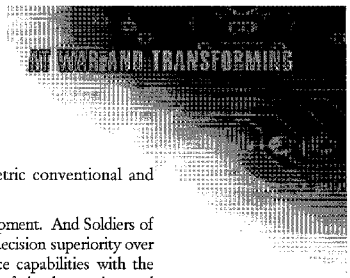
The Nation will continue to face adaptive, asymmetric threats that capitalize on the power of information. To dominate and maintain superiority over these emerging challenges, The Army is changing the way we fight - a paradigm shift more significant than the 20th Century's introduction of the tank and the helicopter. The Army is changing from sequential and linear operations to distributed and simultaneous operations. The Objective Force - characterized by networks of people enabled with systems that provide actionable information and decision superiority - will dissuade, deter or decisively defeat our adversaries anytime, anyplace, and anywhere.

The Objective Force will consist of command structures scaled to meet Joint Force Commander requirements and modular combined-arms units tailored according to each situation. Objective Force integrated, mobile, air-ground teams will conduct mounted and dismounted operations and employ both manned and unmanned platforms to achieve decisive victories. Capable of forcible entry and operations in austere environments to address the spectrum of military operations - from humanitarian assistance to warfighting - the Objective Force will conduct simultaneous combat and stability operations and master transitions between phases of operations. It will be an offensively oriented, multi-dimensional force enabled by advanced information technologies that give Soldiers real-time intelligence and actionable information.


Conceptual – Objective Force Warrior

The Objective Force will arrive in theater combat capable - deployment will be synonymous with employment. The Objective Force will be strategically responsive and rapidly deployable on the US Air Force family of inter-theater and intra-theater aircraft. An Objective Force Unit of Action (UA) will deploy on approximately one-third the number of aircraft required to deploy a heavy brigade combat team today. It will be operationally deployable and capable of operational maneuver over strategic distances by air, land, or sea. Soldiers will overcome anti-access and area denial strategies and environments through precision maneuver and decision superiority.

Equipped with new systems designed to meet the needs of The Army's future fighting formations, the Objective Force will be a networked system of systems. This system of systems includes Soldiers equipped with the Land Warrior system; a family of 18 integrated, synchronized, manned and unmanned Future Combat Systems (FCS); and critical complementary systems such as the Comanche and the Future Tactical Truck System. The components of the FCS are being synchronously developed and fielded as a complete family to achieve the warfighting



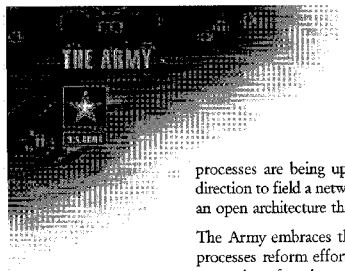
capabilities the Nation requires to defeat adaptive, asymmetric conventional and unconventional adversaries.

Soldiers are the centerpiece of The Army's formation - not equipment. And Soldiers of the Objective Force will leverage dominant knowledge to gain decision superiority over any adversary. They will seamlessly integrate Objective Force capabilities with the capabilities of joint forces, Special Operations Forces, other federal agencies, and multinational forces. The Objective Force Soldiers will enable the United States to achieve its national security goals in a crisis, rather than simply inflict punitive strikes on an adversary. Employing FCS capabilities in formations called Units of Action (UA) and Units of Employment (UE), Objective Force Soldiers will provide campaign quality staying power - that means precision fire and maneuver to control terrain, people, and resources, without having to resort to indiscriminate collateral damage. The Land Warrior system will integrate individual Soldiers in the network while providing them increased protection and lethality. And FCS will give Soldiers the capability to destroy any adversary in any weather and environment with smaller calibers, greater precision, more devastating target effects, and at longer-ranges than available today.

Joint C4ISR - a network-centric information architecture nested within the Global Information Grid (GIG) - will connect the Objective Force's system of systems. Capitalizing on the synergistic power of the information network enterprise, every Objective Force Soldier and platform will be capable of sensing and engaging the enemy while maintaining situational awareness of friendly forces. Advanced information technologies and C4ISR decision tools and assets will enhance the Common Relevant Operating Picture (CROP). The Objective Force will identify, locate, and engage critical targets with lethal or non-lethal affects and assess battle damage on those targets. The joint C4ISR linkages will enable the attack of targets with whatever joint or Army assets are available for immediate employment, whether the force is in contact or out of contact. Similarly, enhanced situational awareness will facilitate multi-layered active and passive defense measures - including both offensive and defensive counter air against air and non-air breathing, manned and unmanned aerial vehicles.

The CROP and Network centric operations will enhance sustainability of the Objective Force through multi-nodal distribution networks that reach forward to the area of operations or reach back to the Home Station Operations Center. Increased reliability through equipment design and commonality among the FCS family of systems will enhance sustainability while reducing logistics demands. Advanced technologies will enable robust Objective Force operations while shrinking the logistics footprint and lift requirements of deployed forces.

The FCS is a transformational approach to meeting this Nation's requirements for the Objective Force. We designed and will field the FCS family in a carefully balanced manner to avoid optimizing a component at the expense of sub-optimizing the overarching capabilities of Objective and joint forces. The acquisition and requirements development

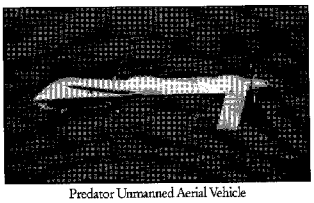


processes are being updated to accommodate the Department of Defense's (DoD) direction to field a networked system of systems rapidly through spiral development and an open architecture that allows maturing technological insertions as they occur.

The Army embraces the ongoing DoD and Joint Staff Capabilities and Acquisition processes reform efforts to achieve revolutionary capabilities in the fielding of a new generation of equipment. This collaborative DoD and JCS effort enables The Army to design new information-age capable organizations holistically, use evolutionary acquisition strategies to equip those organizations, and see the Objective Force fielded before the end of this decade.

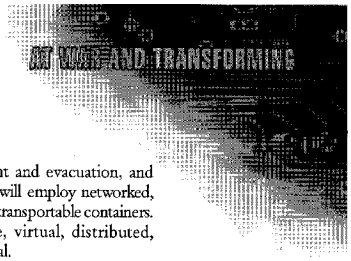
Science and Technology - Moving Toward the Transformed Army

Preempting our adversaries' technological surprises over the past three years, Army Science and Technology investments are already providing America's Army with sustained overmatch in all materiel systems. And The Army has increased and focused its Science and Technology (S&T) investments. We are demonstrating the enabling joint interoperable technologies essential for Objective Force capabilities and accelerating their arrival. Our S&T program is pursuing a wide spectrum of technologies for unmanned air and ground systems that will expand the range of joint warfighting capabilities, reduce risk to Soldiers, and reduce the logistics footprint of the force. Realizing the full potential of unmanned systems requires technological development in sensors that improve navigation and mission performance, in intelligent systems for semi-autonomous or autonomous operation, in networked communications for manned-unmanned teaming, and in human-robotic interfaces, among many others.


Predator Unmanned Aerial Vehicle

The Defense Advanced Research Projects Agency (DARPA) and Army partnership contracted for a Lead Systems Integrator (LSI) to accelerate the transition of FCS to the System Development and Demonstration (SDD) Phase, with a Milestone B decision in May 2003. The Army is on track to achieve first unit equipped in 2008 and an initial operating capability of one Objective Force Unit of Action (UA) in 2010. To accelerate development and in partnership DARPA, the focus on key transformation technologies for the FCS has been narrowed to the systems with the most promise. Our highest priority S&T efforts remain technological advances for the Future Combat System (FCS).

The Army will field FCS as a family of systems built on information age technologies embedded in manned and unmanned air and ground platforms. Integral to joint fires, the family of systems will integrate long-range air- and ground-based sensors with long-range cannon and missile precision munitions. The family of systems will also provide increased joint capabilities to conduct battle command, reconnaissance, mounted combat



operations, dismounted combat operations, medical treatment and evacuation, and maintenance and recovery. To provide decisive lethality, FCS will employ networked, precision and loitering attack munitions fired from modular, easily transportable containers. Finally, FCS will leverage embedded, real-time interactive, virtual, distributed, collaborative, joint simulations for training and mission rehearsal.

Enabling the Objective Force Soldier

Eighteen systems, both manned and unmanned; the Objective Force Soldier; and C4ISR, together, comprise the Future Combat System. Manned and unmanned reconnaissance capabilities are part of the FCS Family of Systems' interdependent networked air- and ground-based maneuver, maneuver support, and sustainment systems.

There are 10 Unmanned Systems: Unmanned Aerial Vehicles (UAV) Classes 1, 2, 3,and 4; Unmanned Ground Vehicles (UGV) - the Multifunction Utility / Logistics and Equipment (MULE), the Armed Robotic Vehicle (ARV), and the Small (manpackable) Unmanned Ground Vehicle (MUGV); Unattended Ground Sensors (UGS); and Unattended Munitions - the Non-Line-of-Sight (NLOS) Launch System (LS) and Intelligent Munitions Systems (IMS).

There are 8 manned systems: the Infantry Carrier Vehicle (ICV); Command and Control Vehicle (C2V); Reconnaissance and Surveillance Vehicle (RSV); Line-of-Sight, Beyond-Line-of-Sight Mounted Combat System (LOS / BLOS MCS); NLOS- Mortar; Medical Vehicle (MV); the FCS Recovery and Maintenance Vehicle (FRMV); and the Non-Line-of-Sight (NLOS) Cannon.

Decisive warfighting is about fires and maneuver: fires enable maneuver, and maneuver enables fires. Joint and organic close, supporting, indirect fires destroy the enemy, suppress the enemy's capabilities, protect our forces and enable ground units to maneuver. The ICV, the Unattended Munitions NLOS-LS, IMS, C2V, MCS, NLOS-Mortar, and NLOS Cannon are important elements of the FCS that will enable the Objective Force to conduct distributed and simultaneous joint combat operations. With joint fires, the NLOS cannon is critical to support and protect our land forces in hostile environments. NLOS-LS NetFires is a platform-independent family of missiles with precision attack and loitering capability. Both Precision Guided Mortar Munitions and Excalibur precision cannon munitions will enhance organic maneuver fires. A new, joint fire support, battle command and fire support architecture will allow rapid engagement of targets by any Army or joint asset.

For over 227 years, Soldiers have remained the centerpiece of our formations. The Land Warrior program - another key S&T initiative - responds to this legacy and enhances our Soldiers combat power generation capability. The Land Warrior program will develop a lightweight, low observable, enhanced-armor protection, fighting ensemble for the individual Objective Force Soldier. Through networked connectivity to the FCS-equipped, maneuver Unit of Action, Land Warrior Soldiers will enable revolutionary lethality,

mobility, survivability, and sustainability for the individual warfighter while reducing logistics demands.

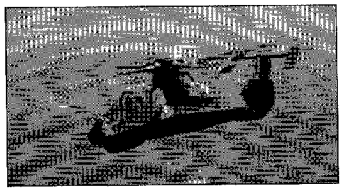
Future Combat Systems are networked in the joint C4ISR architecture - including networked communications, networked options, sensors, battle command systems, training, and both manned and unmanned reconnaissance and surveillance capabilities. These networked systems will dramatically enhance situational awareness and understanding and operational level synchronization well beyond today's standards. Improved C4ISR capabilities will enable network-centric Objective Force operations. The results of the investments will allow leaders to capitalize on sensor and processing technology to see, understand, and shape the battlespace before the enemy can react - increasing combat force effectiveness and survivability. The S&T program will develop and demonstrate real-time, continuous situational understanding by integrating data from manned and unmanned air- and ground-based sensors.

S&T investments in military logistics are an important enabler for the Objective Force. We are placing our emphasis on sustainment's big drivers - fuel, ammunition, maintenance, and water - to dramatically reduce our logistics footprint and lift requirements in these areas. Key technologies include on-board water generation, real-time logistics command and control processes and distribution management, enhanced multi-purpose munitions and packaging, efficient propulsion and power technologies, real-time diagnostics and prognostics, and Micro-Electro Mechanical Systems (MEMS).

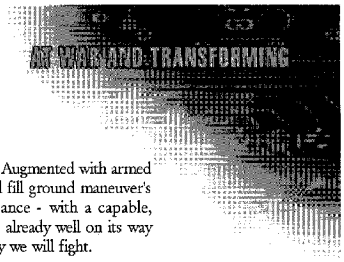
Transformational Systems

Several transformational systems were under development prior to announcement of The Army Vision in October 1999. The Army has completed an extensive analysis to identify those systems that complement FCS and the Objective Force system of systems.

The Comanche Helicopter is the centerpiece of the Aviation Modernization Plan (AMP) and represents the first new system to reach Initial Operational Capability (IOC) within The Army's Objective Force. Comanche is our armed reconnaissance platform with attack capabilities. It will leverage the situational awareness and situational curiosity of a scout augmented with revolutionary, state-of-the-art Intelligence, Surveillance, and Reconnaissance (ISR) technologies. Comanche supports vertical and horizontal maneuver as an integral part of network centric operations and extends human eyes and decision-making beyond the ground maneuver force. Utilizing stealth technologies, it will network with all joint C4ISR and joint weapons systems. Comanche will leverage maximum effect of future standoff precision weapon systems such as the Common Missile and allow us to maneuver



RAH-66 Comanche Helicopter

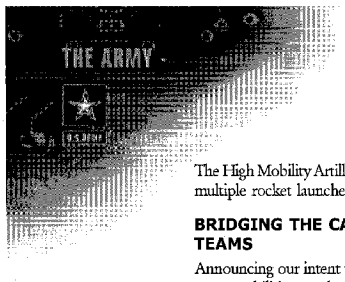


ground formations based upon full knowledge of the situation. Augmented with armed or unarmed Unmanned Aerial Vehicles (UAVs), Comanche will fill ground maneuver's most critical battlefield deficiency - armed aerial reconnaissance - with a capable, survivable, and sustainable aircraft. The Comanche program is already well on its way to giving The Army a capability pivotal to transforming the way we will fight.

Several other transformational systems will empower the Objective Force with the knowledge dominance and battle command to provide decision superiority across the spectrum of operations. The Warfighter Information Network-Tactical (WIN-T) System, Medium Extended Air Defense System (MEADS), the Joint Tactical Radio System (JTRS), and The Army Airborne Command and Control System (A2C2S) will enable Objective Force joint C4ISR capabilities. These programs will provide the tactical enterprise level networks that will ensure seamless, secure, digital connectivity between the Objective, Interim, and today's forces. The Distributed Common Ground System-Army (DCGS-A) architecture provides Army network-centric ISR connectivity from national agencies to joint systems to Objective Force Units of Action as part of the integrated Department of Defense DCGS architecture. DCGS-A will enable interoperable tasking, processing, and exploitation capabilities. The Aerial Common Sensor brings improved signal intelligence collection and precision geolocation capabilities, as well as imagery intelligence (IMINT) and measurement and signals (MASINT) sensor packages. Another system, Prophet, uses communications intelligence to depict the battlespace and further enhance situational awareness. These C4ISR systems greatly enhance the Objective Force's ability to gain actionable information superiority and decision dominance over all adversaries and expand the range of options for the joint force Combatant Commanders.

Transformational systems will provide the Objective Force with strategic and tactical maneuver capabilities. The Theater Support Vessel will support rapid intra-theater lift requirements, provide the capability to conduct operational maneuver and repositioning, and enable units to conduct enroute mission planning and rehearsal. The Future Tactical Truck System will have commonality with FCS and will support the Objective Force by enabling command, control, and transportation of cargo, equipment, and personnel. And the Tactical Electric Power (TEP) generators will provide power to Objective Force units where fixed power grids are not available.

Transformational systems provide the Objective Force with other important capabilities, as well. Chemical, Biological, Radiological, Nuclear and Explosive (CBRNE) effects systems support the Objective Force across the spectrum of military operations and improve capabilities to conduct Homeland Security activities. Engineer, civil affairs, and psychological operations vehicles will enable mobility and enhance civil affairs and PSYOPs capabilities. The Up-Armored High Mobility Multi-purpose Wheeled Vehicle (HMMWV) will improve Objective Force Soldier survivability and lethality. The Multi-Mission Radar will provide the capability to detect and track aircraft, artillery, and other projectiles, then queue appropriate weapons systems and airspace synchronization systems.



The High Mobility Artillery Rocket System (HIMARS) is a lighter weight, more deployable multiple rocket launcher capability that will integrate into the joint fires network.

BRIDGING THE CAPABILITIES GAP-STRYKER BRIGADE COMBAT TEAMS

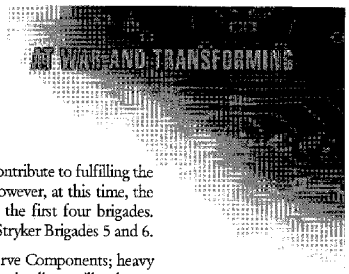
Announcing our intent to field an Interim Force in October 1999, The Army responded to a capabilities gap between its lethal, survivable, but slow-to-deploy heavy forces and its rapidly deployable light forces that lack the protection, lethality, and tactical mobility that we seek. Just two-and-a-half years later in 2002, The Army began fielding the first Stryker Brigade Combat Team to bridge that gap. In 2003 - less than four years after the announcement - we are on track to achieve IOC with the first SBCT at Fort Lewis, Washington. Stryker Brigades will provide the Combatant Commander vastly increased operational and tactical flexibility to execute fast-paced, distributed, non-contiguous operations.


Stryker rolls off a C-130, Ft. Lewis, WA

Stryker Brigade Combat Teams respond to Combatant Commander requirements across the spectrum of military operations. Optimized for combat in complex and urban terrain, the Stryker Brigades will be decisive in other major combat operations, as well. The SBCT Reconnaissance, Surveillance, and Target Acquisition (RSTA) Squadron provides both organic human intelligence capabilities and UAVs embedded at the brigade level. Its military intelligence and signal companies - working through a digitally enabled battle command bridge - leverage theater and national assets to create an information-enabled force. SBCTs will use this enhanced joint C4ISR capability to revolutionize combat paradigms from *"make contact, develop the situation, maneuver the forces"* to *"understand the situation, maneuver the forces, make contact at the time and place of your own choosing, and finish decisively."*

Moreover, leveraging platform commonality, enhancing logistics practices and enablers, and reorganizing logistics formations, the SBCT is vastly more deployable and sustainable than our heavy forces, while significantly increasing combat power generating capabilities. Augmented for sustained operations, the SBCT requires 37% fewer CSS personnel than a digitized heavy brigade. While capitalizing on these advantages, developing and available technologies allow us to mass effects - rather than massing formations - and create a robust, reliable capability to conduct operational maneuver over strategic distances.

Finally, SBCTs provide an invaluable means of spearheading Transformation. The SBCT trains junior officers and noncommissioned officers - tomorrow's commanders and command sergeants major - in the tactics, techniques, and procedures that will inform employment of the Objective Force.



The Army has resourced six Stryker Brigade Combat Teams to contribute to fulfilling the 1-4-2-1 defense construct and national security requirements; however, at this time, the Secretary of Defense has only authorized the procurement of the first four brigades. The Army will provide the Secretary of Defense with a plan for Stryker Brigades 5 and 6.

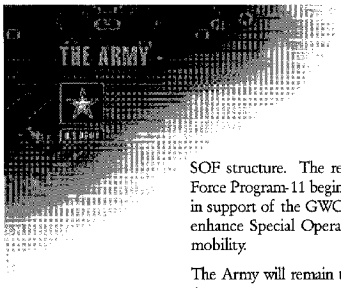
Fielding of the SBCTs affects the entire Army: Active and Reserve Components; heavy and light forces; CONUS and OCONUS. And current fielding timelines will enhance the Nation's ability to fight and win the GWOT and conduct major combat operations. The transformation of four Active Component brigades to SBCTs provides a rotational base with three of the SBCTs focused on the Pacific theater. One of the two SBCTs fielded at Fort Lewis will be forward-based in Europe not later than 2007. The Stryker Cavalry Regiment will support the XVIII Airborne Corps' critical need for robust, armed reconnaissance. The conversion of a Reserve Component brigade to an SBCT will enhance our strategic reserve and support the GWOT, Smaller Scale Contingencies, and Homeland Defense missions. Additionally, SBCT stationing provides rapid, strategic responsiveness through power projection platforms capable of supporting four critical regions described in the 1-4-2-1 defense construct. The first SBCT will attain Initial Operational Capability in the summer of 2003.

Preserving the Army's Legacy

Today's force guarantees The Army's near-term warfighting readiness to fight and win our Nation's wars, decisively. Because The Army bypassed a procurement generation, The Army's Combat Support and Combat Service Support systems now exceed their 20-year expected life cycle, and 75% of our critical combat systems exceed their expected half-life cycle. To maintain operational readiness while preserving resources for Transformation, The Army is recapitalizing and selectively modernizing a portion of the current force. The modernization program addresses the critical issue of AC and RC interoperability and serves as a bridge to mesh these two components seamlessly. In general, The Army increased funding for programs that are *clearly transformational* and support the Defense transformation goals, *sustained* funding for high priority systems that will transition to the Objective Force, and *reduced* funding for systems not essential to Army Transformation. The Army remains committed to its 17-system recapitalization program, but we have reduced the prioritized recapitalization program from three-and-one-third divisions to two divisions.


M270 MLRS

Army Special Operations Forces (ARSOF) are an indispensable part of The Army and will continue to provide unique capabilities to the Joint Force and Land Component Commanders. In response to the increasing requirement for Special Operations Forces in support of joint campaign plans, The Army has validated and resourced growth in its

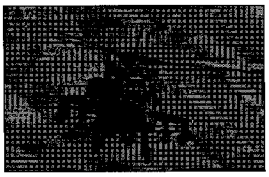


SOF structure. The recent initiatives will transfer 1,788 manpower spaces to Major Force Program-11 beginning in FY03. Since the commencement of ARSOF operations in support of the GWOT, the US. Army has provided over $1.4B in new equipment to enhance Special Operations Forces firepower, communications, and ground and air mobility.

The Army will remain the largest user of space-based capabilities among the Services. Army space assets are providing tangible support to the war on terrorism and Operation ENDURING FREEDOM - they ensure Army and Joint Force Commanders optimize communications, satellite intelligence, Global Positioning System, imagery, weather, missile warning, and other space-based capabilities in every aspect of planning and operations. We are working diligently with the joint and interagency space community to ensure that Army and joint space systems continue to provide their essential capabilities now and for the Objective Force.

Aviation Transformation and Restructuring

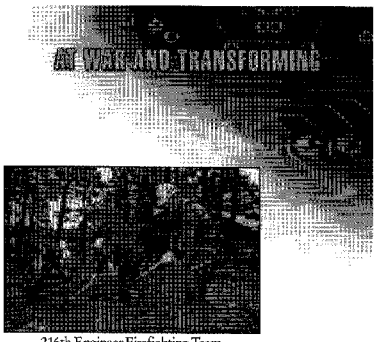
Aviation Transformation further demonstrates The Army's hard choices in balancing risk to resource Transformation. Our interim plan - now in progress - lowers operating and sustainment costs while posturing aviation for arrival of the Objective Force by 2010. Apache modernization is an integral part of the Army Aviation Transformation Plan. The AH-64D Longbow heavy attack team will enhance domination of the maneuver battlespace and provide the ground commander with a versatile, long-range weapon system against a range of fixed and moving targets. The UH-60 Blackhawk continues to be the assault workhorse of Army Aviation, executing over 40% of The Army's annual flying hours. We are extending the life of the UH-60 while providing it with capabilities required of the future battlespace. Similarly, The Army is fully committed to the CH-47F Chinook program. Its heavy-lift capability is invaluable to transforming The Army. As we restructure and standardize attack and lift formations across the force, we will also adjust the stationing and alignment of Reserve Component aviation units to mitigate the near-term risk.


AH-64 Apache, Bagram, Afghanistan

Army National Guard Aviation comprises almost 50% of The Army's aviation force and is one of the Nation's most valuable assets both for wartime and for peacetime missions. Essential for successful execution of the Nation's military strategy, the ARNG currently has aviation units deployed in Afghanistan, Kuwait, Bosnia, Europe, and Saudi Arabia, as well as Central and South America.

Army National Guard Restructuring Initiative (ARNGRI)

ARNGRI seeks to transform a sizeable portion of ARNG combat structure into more deployable, flexible fighting forces to support Army requirements at home and abroad.



216th Engineer Firefighting Team,
South Dakota Army National Guard

ARNGRI will introduce two new organizations into the force structure: Mobile Light Brigades (MLB) and Multi-Functional Divisions (MFD). These organizations will provide full spectrum capabilities in support of Combatant Commanders. The MLB will operate as a subordinate unit to the MFD, which will also contain two combat support / combat service support brigades and be capable of supporting either major combat or homeland security operations.

Army Reserve Transformation Initiatives

By providing responsive force generating capability and technically trained individuals, The Army Reserve (USAR) facilitates our capability to conduct extended campaigns in multiple theaters and to sustain joint operations. Army Reserve initiatives ensure the USAR is missioned, organized, and equipped to provide interoperability across the full spectrum of military operations. Transformational organizations include experimentation forces and information operations, joint augmentation, network security, and interagency units.

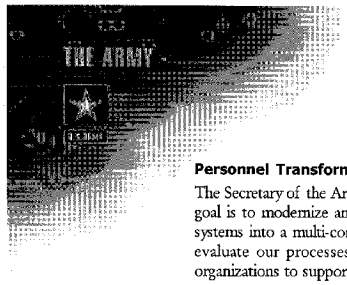
The Readiness Command Restructuring (RCR) initiative and Federal Reserve Restructuring Initiative (FRRI) will help the USAR fulfill these new mission requirements. These initiatives lend greater flexibility to efforts that enhance responsiveness to America's foreign and domestic protection needs. Regional Readiness Commands will focus on individual and unit readiness, leader development, training and growth which will demand a new personnel system that achieves holistic life-cycle management for Army Reserve Soldiers.

INSTITUTIONAL ARMY

Transforming the Way We Do Business

We have made great strides in revolutionizing our business management practices by starting at the very top. Last year, we realigned our headquarters by reorganizing and realigning responsibilities of the Secretariat and the Army Staff - streamlining coordination, tasking, and decision-making - resulting in a more responsive and efficient organization. This initiative allowed us to eliminate unnecessary functions and redistribute 585 manpower spaces to accomplish core competencies.

As previously discussed, The Army has addressed the management of its installations, personnel systems, and contracting in its Transformation of Installation Management (TIM). We are aggressively pursuing efforts to outsource non-core functions. The Army will reap substantial dividends in efficiency and effectiveness through these strategic realignments of human and physical capital.



Personnel Transformation

The Secretary of the Army's key management initiative is personnel transformation. Its goal is to modernize and integrate human resource programs, policies, processes, and systems into a multi-component force that includes civilians and contractors. We will evaluate our processes and implement the most efficient program, policies, and organizations to support the Objective Force.

The centerpiece of Personnel Transformation is a comprehensive effort focused on a potential Army-wide implementation of unit manning and unit rotation. We are aggressively examining the feasibility of a unit manning and rotation system that would better support the new national defense strategy, improve cohesion and combat readiness within the operational Army, provide highly cohesive well-trained units to Combatant Commanders, and improve well-being for families by providing greater stability and predictability in assignments. The Army currently uses unit rotations in support of operational missions in the Balkans, Sinai, and Afghanistan. The Army is studying the use of unit rotations for other locations and in the war on terrorism. Units would know of these rotations well in advance, providing families with greater predictability and enabling focused preparation, both of which contribute to increased combat readiness of the unit.

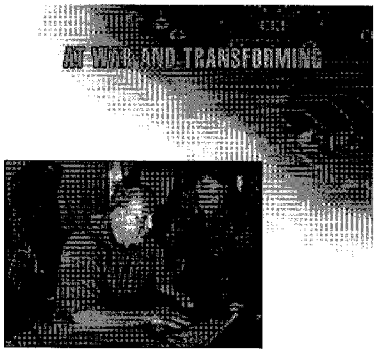

122nd Signal Battalion
Camp Red Cloud, Korea

Unit manning seeks to synchronize the life cycle of a unit with the life cycle of the Soldier within that unit. All Soldiers and leaders would be stabilized, resulting in a significant increase in cohesion and combat readiness over our present individual replacement system. Such a system has significant second and third order effects across the force - training and leader development, recruiting and retention, unit readiness levels, and total Army endstrength, among others. All of these are being studied intensively, and we anticipate senior Army leadership decisions on unit manning and unit rotation in July 2003.

Third Wave

Because we operate in an environment in which there are increasing demands for military capabilities - the Secretary of the Army's Third Wave initiative seeks to ensure that we are achieving the best value possible for our taxpayers' dollars.

There are three phases to the Third Wave process. First, we determined what activities were core or non-core to The Army's mission. In the second phase, we are validating the breakout between core and non-core functions by determining if any non-core functions should be exempted. This phase has an anticipated completion date of mid- to late February 2003. Upon completion, The Army leadership will notify Congress of the results of this phase. In the third phase, key Army leaders will assess appropriate plans



Army Contractor,
Exercise Kernal Blitz Experimental (KBX)

to execute non-core functions, select the best means to proceed, and develop implementation plans. At this time, we do not know how many of the 214,000 jobs identified as potentially non-core functions in Phase I will be included in implementation plans. Although implementation plans will target execution in fiscal years 2005-2009, some implementation plans may be delayed beyond that period.

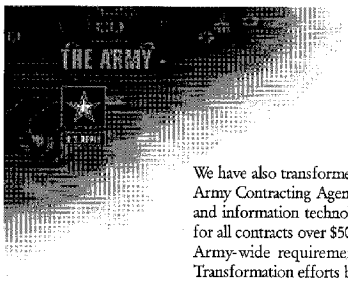
The implementation of competitive sourcing of non-core functions will adhere to OMB Circular A-76 and related statutory provisions. Exceptions to the requirement for public-private competition are limited, such as where 10 or fewer civilian employees perform the function or where legal restrictions against using the A-76 process apply to the function. To lower costs for taxpayers and improve program performance to citizens, OMB has undertaken major revisions to the processes and practices in OMB Circular A-76 to improve the public-private competition process.

Acquisition Transformation

The Army is leading the way in acquisition reform within DoD's broad transformation of defense acquisition policies and procedures. The Army's FCS program may prove to be the largest DoD acquisition effort that fully embraces the concepts of evolutionary acquisition and spiral development - leveraging the potential of rapid advancement within individual technologies by allowing for changes within programs as technologies mature.

The FCS program is evolutionary in its design and incorporates periodic blocked improvements within its 19 systems - the Objective Force Soldier and 18 manned and unmanned systems. Within these 19 systems are 540 spirally developing technologies. The Army's use of a Lead System Integrator (LSI) enables a "best of the best" approach to selection from competing industry efforts. Our unprecedented partnership with DARPA ensures the FCS effort leverages that agency's DoD-wide perspective and resources to produce the best capability and value for the Joint Force.

The Army continues to revise its acquisition policies and applicable regulatory guidance. On October 3, 2001, The Army approved an acquisition reorganization that transferred control of all acquisition program management to the Army Acquisition Executive (AAE) and eliminated duplication of effort in two major Army commands. Effective October 2002, twelve Program Executive Officers (PEO) report to the Army Acquisition Executive, and their subordinate PEOs assumed management of all Army acquisition programs, regardless of Acquisition Category. The plan ensures that there is only one chain of authority for acquisition programs within The Army. In addition, the plan clearly holds Program Managers responsible and accountable for the life cycle management of their assigned programs.

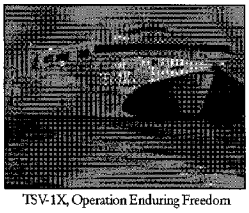


We have also transformed the way we conduct business through the organization of the Army Contracting Agency (ACA) that realigns our previously decentralized installation and information technology contracting processes into one organization. Responsible for all contracts over $500K and tasked to eliminate redundant contracts, ACA leverages Army-wide requirements to achieve economies of scale. ACA supports Army Transformation efforts by aligning all base support contracting into a single organization that best supports installation management transformation. All of these initiatives use information technology to leverage enterprise-wide buying capabilities. Additionally, ACA will act as the single coordinating element and form the base from which to deploy contingency-contracting, operational support to the warfighting commands. The Army Contracting Agency and other contracting activities will continue to support small business awards in the outstanding manner it did in FY02.

Logistics Transformation

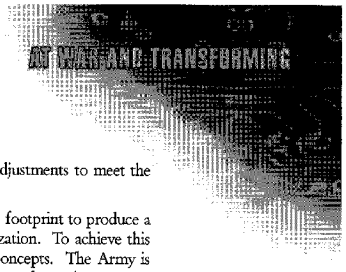
We cannot transform The Army without a transformation in logistics. We must incorporate the logistician's view into the design of our systems even before we begin to build platforms. Collaboration between the acquisition and logistics communities will give the Objective Force the rapid deployability and sustainability we demand - by design - without compromising warfighting capability.

Designing the right logistics architecture - systems, business processes, enterprise, for example - is fundamental to success. The Army's Logistics Transformation will focus on creating an overarching corporate logistics enterprise that employs industries' best business practices. Within this enterprise, The Army established three principal goals for Logistics Transformation: enhance strategic mobility and deployability; optimize the logistics footprint; and reduce the cost of logistics support without reducing readiness or warfighting capability.


TSV-1X, Operation Enduring Freedom

The Army's mobility and deployability goals for the Objective Force are to deploy a combat brigade within 96 hours after lift off, a division on the ground in 120 hours, and a five-division corps in theater in 30 days. To achieve this strategic responsiveness, the Army Strategic Mobility Program (ASMP) serves as a catalyst to bring about force projection changes both in The Army's and in our Sister Services' lift programs. Platforms like the Intra-Theater Support Vessel (TSV) and Inter-Theater Shallow Draft High Speed Sealift (SDHSS) provide transformational capabilities for operational and strategic maneuver and sustainment of Army formations.

Because strategic air and sealift cannot meet deployment requirements, Army Prepositioned Stocks (APS) ashore and afloat continue to be a critical component of Army power projection. The Army is currently participating in a joint-led Worldwide Prepositioning Study to determine if location, mix, and capabilities in existing stocks of



combat, combat support, and combat service support require adjustments to meet the Defense Strategy more effectively.

The Objective Force requires The Army to optimize its logistics footprint to produce a smaller, more agile, responsive, and flexible sustainment organization. To achieve this goal, we will leverage technology and innovative sustainment concepts. The Army is already developing and integrating key enablers to provide a transformed, corporate logistics enterprise. Some of these enablers include embedded diagnostics and prognostics, tactical logistics data digitization (TLDD), serial number tracking, and the Global Combat Service Support - Army (GCSS-A) system that utilizes a commercial Enterprise Resource Planning (ERP) solution. The ERP approach changes The Army's logistics automation systems strategy from one of custom code development for unique Army requirements to adoption of a commercial off-the-shelf (COTS) product.

The selective use of the Logistics Civil Augmentation Program (LOGCAP) to augment military logistics force structure provides commanders with the flexibility to reallocate manpower, resources, and materiel by adding contractors to the equation of logistics support. In addition to providing services and some supply support, these contractors can quickly deploy to establish base camps, receive and process Soldiers as they begin arriving in theater, and reverse the process when Soldiers go home.

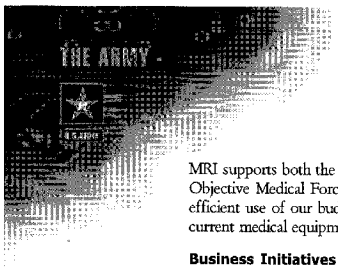
Current initiatives that help reduce costs without reducing readiness or warfighting capability include the National Maintenance Program (NMP) and the Single Stock Fund (SSF). As previously discussed, programs provide two basic building blocks for a revolutionary change in logistics business practices.

Advanced Medical Technology

Congress designated The Army as the lead agent for DoD vaccine, drug, and development programs for medical countermeasures to battlefield threats. This includes vaccines against naturally occurring infectious diseases of military significance, combat casualty care, military operational medicine, and telemedicine research. The program also funds Food and Drug Administration requirements for technology transition to advanced development.

US. Army 947th Forward Surgical Team, Bagram AFB, Afghanistan

The medical force provides the requisite medical intervention and care for the Joint Force deployed around the globe. With its Medical Reengineering Initiative (MRI), The Army Medical Department has transformed 28% of its Corps, and echelon above Corps, force structure to an organizational structure that promotes scalability through easily tailored, capabilities-based packages. These packages result in improved tactical mobility, reduced footprint, and increased modularity for flexible task organization.



MRI supports both the current forces and the Stryker Brigades, and is the bridge to the Objective Medical Force. We have implemented innovative strategies make the most efficient use of our budget. Medical modernization, which includes the acquisition of current medical equipment and technology, is partially funded within MRI units.

Business Initiatives Council

In June 2001, the Secretary of Defense established the Department of Defense Business Initiatives Council (DoD BIC). The DoD BIC's goal is to improve business operations and processes by identifying and implementing initiatives that expand capabilities, improve efficiency and effectiveness, and create resource savings in time, money, or manpower.

The Army has aggressively explored ways to improve its internal business practices, and has established The Army BIC (ABIC), under the leadership of the Secretary and the G-8. Effective November 13, 2002, the Secretary of the Army has approved a total of 35 initiatives under the ABIC. Subsequently, The Army submitted a number of the initiatives through the formal DoD BIC process for implementation across the Services and other DoD activities. The BIC process has helped to create a culture of innovation and inter-service cooperation. The superb level of cooperation across the military departments, the Joint Staff and OSD has made this possible.

AT WAR AND TRANSFORMING

A COMMITMENT TO THE FUTURE

With the continued strong support of the Administration, the Congress, our Soldiers, and our Department of the Army civilians, and the greatest industrial base and science and technology communities in the world, The Army will field the Objective Force - this decade.

By 2010, we will have fielded the first operationally capable Objective Force unit equipped with the Future Combat Systems. Our Stryker Brigade Combat Teams will be providing to Combatant Commanders capabilities not currently available - enhanced strategic responsiveness and the ability to operate in a distributed, non-linear battlespace. Through selective recapitalization and modernization of systems that enable our Soldiers to preserve our legacy today, we will have sustained a decisive-win capability at a high state of readiness as an integral part of the Joint Force. And we will have significantly improved the well-being of our people and sustainment of Army infrastructure.

We remain committed to our legacy - preserving America's freedoms. In peace and in war, The Army's Soldiers serve the Nation with unmatched courage, indomitable will, pride, and plain grit - as they have for over 227 years. Soldiers will continue to fight and win the Nation's wars, decisively - it is our sacred duty and our non-negotiable contract with the American people.

Shahi Kot, Afghanistan, © 2002 AUSA

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Chairman WARNER. Thank you, General.
Admiral.

STATEMENT OF ADM. VERNON E. CLARK, USN, CHIEF OF NAVAL OPERATIONS

Admiral CLARK. Thank you, Mr. Chairman, Senator Levin, and members of the committee: Good morning and thank you for the opportunity to be with you here this morning to talk about our Navy and the challenges that we are facing today in the world.

Mr. Chairman, I submitted a statement and if we could make that full statement a part of the record.

Chairman WARNER. The full statements of all witnesses will be included in the record.

Admiral CLARK. We are facing a period of great challenge and a period of great accomplishment. I am proud of what our people are doing on the point. I could not in fact be prouder of what our sailors are doing today in the world, involved in the global war on terrorism. It is hard work. We have great young men and women who are working the challenge and the task. They are innovators. They have great ideas. They are making our Navy better every day, and that is their task.

I also want to make sure that I express my appreciation to this committee and to Congress at large for the help that you have played in your support in making our Navy stronger. I am grateful for the support of this body in the progress that we have made in improving our Navy. I will tell you that we are enjoying the best retention that we have ever experienced in my entire career, and frankly, in our Navy's history. The pay, the allowances, housing, the readiness that Congress has provided for our force is making a real difference.

I want to also thank my partners here at the table, my Service Chief partners. These guys are committed to jointness and I will tell you, it is a pleasure to serve with them. In my estimation, our military is more joint than it has ever been before and I say without hesitation that all of the Services are needed equally to accomplish the task and the mission that is before us, and this group of people is working effectively together to get the job done.

Last year when I appeared before this committee, I talked about current readiness and manpower as my highest priorities. I believe those decisions were right. I believe it postured us for the global war on terrorism. Our recommendations and the President's submission of the budget and the congressional affirmation has made a great difference in the readiness of your Navy.

We have reduced near-term operational risks, we have deepened the growth and the development of our sailors, and we are seeing the results in our deployments and in our people today. Those investments have made today possible. This morning, 51 percent of my ships are deployed overseas. Of my 306 ships, 195 of them are under way this morning, 6 of the 12 carrier battle groups and two-thirds of the amphibious force carrying the marines.

They are under way in support of the Nation's interests, leading the defense of the United States of America away from our shores, sending, I like to say, the sovereignty of the United States of America anywhere we have to take it—capable, persistent, joint, ready forces. They are demonstrating on an hourly basis the return on investment that this body has made in our Navy.

I am proud of the budget submission this year. It is not without debate, to be sure, and I look forward to the discussion today. This year we seek to sustain the advances made in current readiness and in manpower and to focus on future readiness and transformation.

Seapower 21, which is our vision for the future and detailed in my full statement, is about a dispersed, network-centric, joint, sea-

based force, a force capable of projecting offensive power, a force capable of projecting defensive power—I call that Sea Strike and Sea Shield. I talk about that in terms of being a sea-based force, exploiting our operational advantage, the largest maneuver space on the planet, the world's oceans.

In our investment strategy this year, we have assessed the risks between current readiness and future readiness, and I believe that it is appropriately balanced. We invest today to support the global war on terrorism and win today's fight, and we must invest in the capabilities to win tomorrow's fight as well. That involves tough decisions, to be sure, and I am looking forward to talking about them today.

The threat assessment is straightforward. I think we all understand it. But in my judgment this has allowed us to take some steps to better prepare for the future. You all know that my focus in the previous 2 years has been on making sure that we won the battle for people, making sure that our current force was really ready to go. I think we have made great progress in those areas, and I do believe it is time to shine the spotlight on the future.

The proposals before Congress allow us to divest of older, less capable equipment and to move toward that future. Certainly numbers are important and I have talked about them in my previous 2 years coming before this body to testify. Numbers have a quality all of their own. We have to buy capability and lethality into the systems that we field and put to sea.

So, as I understand it, we are going to have a closed session today. I look forward to discussing the future threat and our readiness to deal with the future threat.

Last year, our challenge was to find the money to recapitalize our Navy. I believe that we are on the way and the budget that is sent before you today increases the number of ships that we are buying and the number of aircraft that we are procuring for the future. We are bringing very important capability into the force like: the heart of our family of ships for the future, CVN–21, the first new carrier design in over 40 years; the Littoral Combat Ship, a revolutionary part of the family of ships, built with plug and play technology, a ship that will enable us to move rapidly into the 21st century, conceived with unmanned vehicles in mind.

This budget will continue F/A–18E/Fs, which are deployed now, Mr. Chairman, for the first time. This budget introduces a new airplane, the EA–18G, to replace the jammer of old.

LPD–17 is maturing, with multiple ships under construction. Joint Strike Fighter is in the budget. New helicopters, new support ships, and major investments in the new Hawkeye will provide the eyes and ears of the fleet.

With the President's commitment to missile defense, this budget moves us towards sea-based missile defense in the year 2004. Unmanned vehicles are on the horizon in partnership with my friend, General John Jumper, sitting at the end of the table.

In short, this budget continues the commitment to build the culture of readiness in our Navy. It focuses on people, our capital asset. It sustains our commitment to the growth and development of our sailors. It moves us to the future built upon the principles

of Seapower 21, our vision for the future, with a new focus on future readiness.

This morning, 151 of my 306 ships are deployed. There are another 170 ships under way as part of the Military Sealift Command supporting the rest of the military structure: the Army, the Air Force, and the Marine Corps. This force is ready and it is the most ready it has been in my entire military life. I am proud of the accomplishments and the gains that we have made.

We add to all of that and we look at the challenges that are ahead of us. Mr. Chairman, I believe that this budget proposes the right balance as we move to the future engaging in the global war on terrorism, and I look forward to your questions as we move forward in the hearing.

Thank you.

[The prepared statement of Admiral Clark follows:]

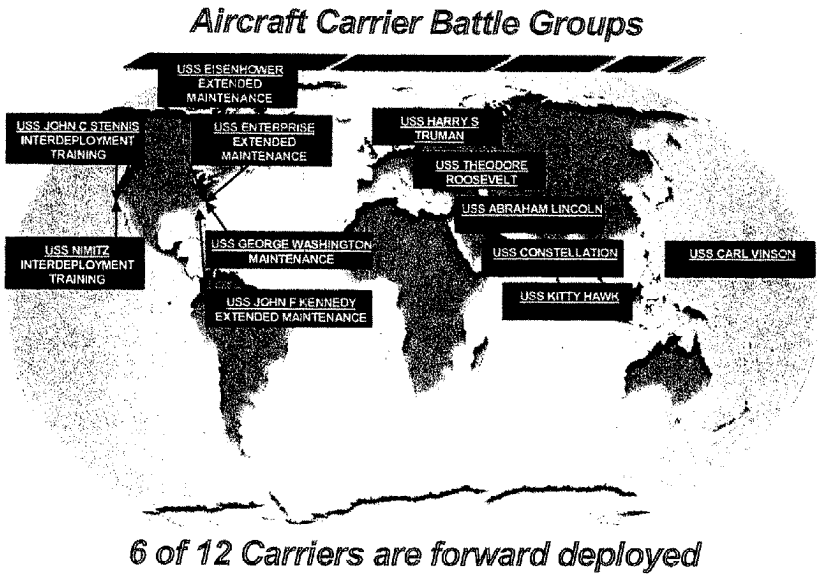
PREPARED STATEMENT BY ADM. VERNON E. CLARK, USN

Mr. Chairman and members of the committee, I appreciate the opportunity to appear today. The investment you've made in America's Navy has been vital to the Nation's security and your Navy's ability to project more power, more protection, and more freedom to the far corners of the Earth. I speak for the entire fleet in thanking you for your exceptional and continuous support.

I: YOUR NAVY TODAY—ENHANCED CAPABILITIES FOR THE JOINT FORCE

This is a time of tremendous challenge and accomplishment for our Navy. Our men and women operating in the air, on and under the sea, and on the ground are at the leading edge of the global war on terrorism.

Today, there are 151 ships on deployment, fully half of the Navy; this includes 6 of 12 aircraft carriers, and 8 of our 12 big deck amphibious ships (LHA/LHD). They are deployed in support of the Nation's interests in the Persian Gulf, the Mediterranean, the Indian Ocean, and the Western Pacific. Still others are preparing for deployment or continuing operations like strategic deterrent and counter-drug patrols in support of other national imperatives.



The Navy's Military Sealift Command (MSC) is also actively engaged in supporting the war on terrorism; today, almost 75 percent of MSC's total force is carrying combat equipment for land-based forces and logistics support for Navy carrier battle group and amphibious ready groups. Nineteen of our 20 large, medium-speed roll-on/roll-off ships (LMSRs), all 8 fast sealift ships, and half of our 72 ship Ready Reserve Fleet are actively supporting the Joint Force.

These forces are operating with purpose, leading the defense of the United States away from our own shores and our own homes. After all, this new century is fraught with profound dangers: rogue nations in possession of weapons of mass destruction, potential conflict between regional competitors, widely dispersed and well-funded terrorist organizations, and failed states that deliver only tyranny and despair to their people.

We frequently talk about the asymmetric challenges such enemies might present, assuming these advantages belong only to potential adversaries. Your Navy possesses asymmetric strengths all its own: its persistence, precision, independence, and agility are but a few.

More importantly, our naval strengths are critical to our joint combat effectiveness. Our forward deployed, combat ready naval forces—sustained by naval and civilian shipmates around the world—are proving every day the unique and lasting value of sovereign, lethal forces projecting offensive and defensive power from the sea.

There are numerous recent examples of the enhanced capability our Navy brings to the Joint Force.

- In Operation Enduring Freedom, Navy aircraft carrier-based tactical aircraft and long range, land-based Air Force tankers and bombers combined with Navy SEALs on the ground and Army Special Forces on horseback to deliver devastating strikes on Taliban and al Qaeda targets in Afghanistan. Since then, our newest combat aircraft, the F/A–18E/F Super Hornet, has been flying combat sorties from the U.S.S. *Abraham Lincoln* in Operation Southern Watch, demonstrating its increased range and payload capability. In combination with Tomahawk missiles from widely dispersed ships and submarines, this joint power projection force gives the Nation the ability to reach across the globe with precise, persistent striking power.
- The *Peleliu* and *Bataan* Amphibious Ready Groups, operating in the Arabian Sea, launched and sustained marines from the 15th and 26th Marine Expeditionary Units more than 450 miles inland at "Camp Rhino," to support the initial forward operating base in Afghanistan. This was the longest-range expeditionary airfield seizure operation ever launched from amphibious ships at sea. During the same timeframe, the carrier *Kitty Hawk* also provided an agile, sovereign Afloat Forward Staging Base (AFSB) for joint Special Operations Forces and their lift, attack, and command and control assets. Permanently installed command, control, communications, computers, intelligence, surveillance, and reconnaissance (C^4ISR) suites and information technologies on all these ships enhanced the entire joint team's knowledge superiority picture and connected these Joint Forces with other forces and commands in the theater and around the world, all from the security our ships enjoy in the maritime domain.
- The Aegis cruiser U.S.S. *Lake Erie* (CG 70) completed three medium range ballistic missile defense tests last year, successfully acquiring, tracking, and hitting target ballistic missiles in the mid-course or ascent phases with a Standard Missile 3 (SM–3) in all three tests. *Lake Erie* and the Aegis destroyer U.S.S. *John Paul Jones* also supported three successive Missile Defense Agency intercontinental class ballistic missile tests; the Aegis system performed exactly as predicted in each of these tests, acquiring the targets immediately and passing high fidelity digital track data to national nodes ashore. These cruisers' and destroyers' organic Aegis Weapons System and their SPY–1 multi-function, phased array radars, demonstrate the capability and capacity to conduct a sea-based missile defense against those ballistic missiles that can target our homeland, allies, forward operating bases, and Joint Forces ashore. They could also provide important surveillance and cueing of intercontinental class weapons directed at our homeland.
- The Navy's Military Sealift Command is actively providing combat logistics support to U.S. Navy ships, is prepositioning joint military supplies and equipment at sea, and is providing sealift and ocean transportation of defense cargo. MSC's high quality shipping, augmented by charters, continues its sealift of the Army's 3rd and 4th Infantry Divisions, the 82nd and 101st Airborne Divisions, and V Corps. Fifteen of our deployed Maritime

Prepositioning Ships (MPS) provide the majority of combat supplies and equipment for our Marine force, and 11 of these have already offloaded equipment in support of contingency operations. MSC is also delivering fuel and aviation support equipment and supplies to deployed Air Forces. In short, 95 percent of all equipment and supplies needed by U.S. forces in time of crisis moves by sea on MSC-controlled ships.

• The U.S.S. *Florida* (SSBN–728), an *Ohio*-class fleet ballistic missile submarine, successfully launched two Tomahawk missiles, confirming the ability to launch a Tomahawk from a configuration similar to the tightly packed cluster of Tomahawk All-Up-Rounds (AUR) we will use in the SSGN. This experiment was conducted in support of the SSGN program's Sea Trial experiment, Giant Shadow, which also explored how a network of forces, including special warfare forces, and various unmanned aerial, underwater, and ground vehicles and sensors could be used to provide surveillance, collect real-time intelligence, and develop and launch a time critical strike in support of the Joint Force Commander. This included the first vertical launch of a UUV, testing of nuclear-biological-chemical sensors, and the insertion of SEALs from one of the submarines we will convert to an SSGN.

These examples represent the return on investment the American people have made in our Navy: an agile, connected fleet that enhances deterrence, sustains our access, conducts precision strikes, exercises joint command and control, enhances knowledge superiority, responds to crisis, projects, sustains and operates with the Joint Force ashore, and leverages the priceless advantage of our command of the seas. It is why we are a critical component of the Nation's joint defenses in peace, in crisis, and in conflict.

None of the foregoing would be possible without the energy, expertise, and enthusiasm of our active and Reserve sailors, and our marine and civilian shipmates in the Department of the Navy. After all, it is people that put capability to practice, and it is their dedicated service that makes these capabilities ready—around the world and around the clock.

II: A CULTURE OF READINESS—A COMMITMENT TO TRANSFORMATION

This century's dangerous and uncertain strategic environment places a premium on credible combat forces that possess speed of response, immediate employability, and the flexible force packaging that brings the right capability to bear at the right time. It demands forces that can pair this capability with readiness, both today and in the future.

Readiness is the Navy's watchword. Readiness is the catalyst that brings combat power, speed of response, and the ability to disrupt an enemy's intentions in both crisis and conflict. Readiness brings capability to bear wherever and whenever it is needed. We are making readiness a key element of our Navy's culture.

The forces we've placed forward today—the 6 carrier battle groups—the 3 Amphibious Ready Groups, the Amphibious Task Forces comprised of 14 additional amphibious ships, and the 11 offloaded Maritime Preposition Ships all supporting a Marine Expeditionary Force of 50,000 marines—our multi-mission surface ships and submarines—the dozens of Military Sealift Command ships transporting the rest of the Joint Force—are the most ready force in our history, properly manned, superbly trained, and well provisioned with ordnance, repair parts, and supplies so they can provide both rotational deployment and surge capability. Our operational forces are ready earlier and are deploying at a higher state of readiness than ever before.

A greater percentage of our ships are underway today than at any time in the last dozen years. Our ability to do so is the direct result of two things: the investment of the American people and the extraordinary commitment and accomplishment of our men and women in the Navy this past year. We made a concerted effort in last year's budget request to improve our current readiness and reduce our immediate operational risk and I am proud to report to you today that this force is ready to fight and win!

At the same time, it is apparent that the 21st century sets the stage for tremendous increases in precision, reach, and connectivity, ushering in a new era of joint operational effectiveness. We clearly will be able to integrate sea, land, air, and space through enhanced network technology to a greater extent than ever before. In this new, unified battlespace, the sea will provide the vast maneuver area from which to project direct and decisive power.

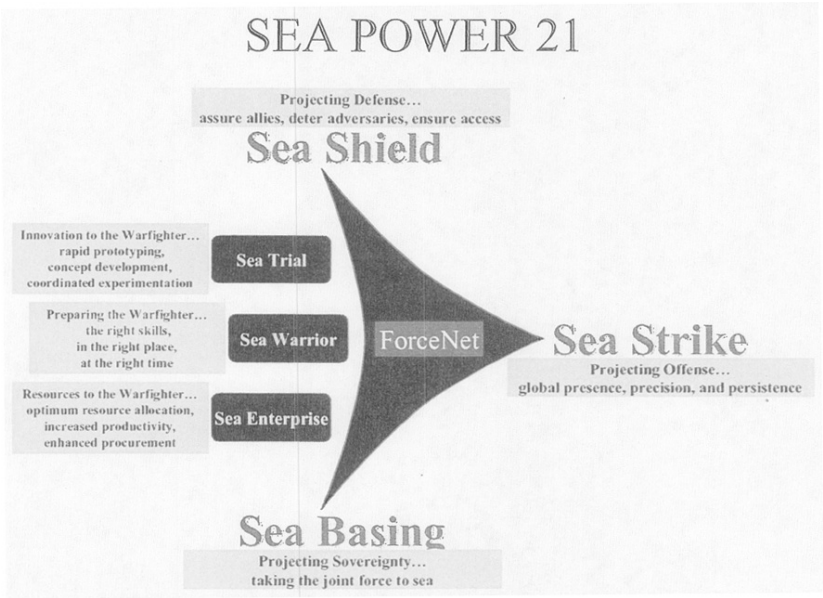
To navigate the challenges ahead and realize the opportunities, we developed this past year a clear, concise vision—Sea Power 21—for projecting decisive joint capabilities from the sea. It is a vision that stresses our asymmetric strengths of infor-

mation dominance, advanced technology, and highly skilled and motivated professionals.

Sea Power 21 advances American naval power to a broadened strategy in which naval forces are fully integrated into global joint operations across this unified battlespace and against both regional and transnational aggressors. It provides the transformational framework for how we will organize, align, integrate, and transform our Navy to meet the challenges that lie ahead.

It also includes the transformed organizational processes that will accelerate operational concepts and technologies to the fleet; shape and educate the workforce needed to operate tomorrow's fleet; and harvest the efficiencies needed to invest in the Navy of the future.

The capabilities needed to fulfill this broadened strategy are grouped into three core operational concepts: Sea Strike, Sea Shield, and Sea Basing, which are enabled by FORCEnet. The triad of transformed organizational processes that supports these concepts is: Sea Warrior, Sea Trial, and Sea Enterprise.



Together, these concepts will provide increased power, protection, and freedom for America.

- Sea Strike is the projection of precise and persistent offensive power. Sea Strike operations are how the 21st century Navy will exert direct, decisive, and sustained influence in joint campaigns. Sea Strike capabilities will provide the Joint Force Commander with a potent mix of weapons, ranging from long-range precision strike, to clandestine land-attack in anti-access environments, to the swift insertion of ground forces.
- Sea Shield is the projection of layered, global defensive assurance. It is about extending our defenses beyond naval forces, to the Joint Force and allies and providing a defensive umbrella deep inland. Sea Shield takes us beyond unit, fleet, and task force defense to provide the Nation with sea-based theater and strategic defense.
- Sea Basing is the projection of operational independence. Sea Basing will use the fleet's extended reach of modern, networked weapons and sensors to maximize the vast maneuver space of the world's oceans. It is about extending traditional naval advantages to the Joint Force with more security, connectivity, and mobility from netted forces at sea.
- FORCEnet is the enabler of our knowledge supremacy and hence, Sea Strike, Sea Shield, and Sea Basing. It is the total systems approach and architectural framework that will integrate warriors, sensors, networks,

command and control, weapons, and platforms into a networked, distributed force and provide greater situational awareness, accelerated speed of decision, and greatly distributed combat power.

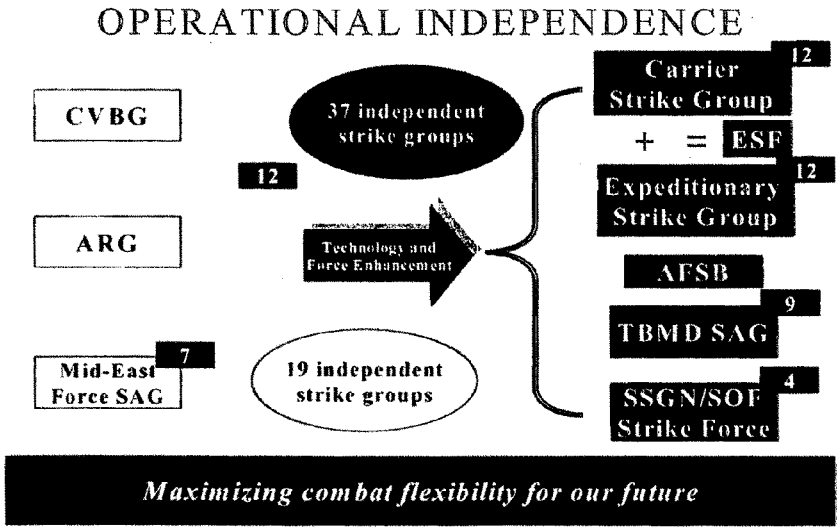
Our transformed organizational processes are:

- Sea Warrior is our commitment to the growth and development of our sailors. It serves as the foundation of warfighting effectiveness by ensuring the right skills are in the right place at the right time.
- Sea Trial is a continual process of rapid concept and technology development that will deliver enhanced capabilities to our sailors as swiftly as possible. The Commander, U.S. Fleet Forces Command is leading this effort and developing new concepts and technologies, such as the Joint Fires Network and High Speed Vessels.
- Sea Enterprise is our process to improve organizational alignment, refine requirements, and reinvest the savings to buy the platforms and systems needed to transform our Navy. It is the means by which we will capture efficiencies and prioritize investments.

Sea Power 21 is dedicated to a process of continual innovation and is committed to total jointness. It extends American naval superiority from the high seas, throughout the littorals, and beyond the sea. It both enhances and leverages persistent intelligence, surveillance, and reconnaissance capabilities and precision weaponry to amplify the Nation's striking power, elevate our capability to project both defense and offense, and open the door to the afloat positioning of additional joint capabilities, assets, and forces.

Sea Power 21 will extend the advantages of naval forces—speed of response, agility, immediate employability, and security—to the unified, joint warfighting team. It will increase our deterrence, crisis control, and warfighting power. It will ensure our naval forces are fully integrated into global joint operations to bring more power, more protection, and more freedom to America.

We will put our Sea Power 21 vision into practice through a new Global Concept of Operations (CONOPs) to distribute our combat striking power to a dispersed, networked fleet. This will optimize our flexible force structure and create additional, scaleable, independent operating groups capable of responding simultaneously around the world. This distribution of assets will take us from 19 strike capable groups to 37 strike capable groups with the full implementation of the Global CONOPs.



- Carrier Strike Groups will remain the core of our Navy's warfighting strength. No other force package matches their sustained power projection ability, extended situational awareness, and survivability.

• Expeditionary Strike Groups will augment our traditional Amphibious Ready Group/Marine Expeditionary Unit team with strike-capable surface combatants and submarines to prosecute Sea Strike missions in lesser-threat environments. When combined with a Carrier Strike Group, the resulting Expeditionary Strike Force will possess the full range of our netted, offensive, and defensive power. We will deploy at least one pilot ESG this year.

• Missile Defense Surface Action Groups will increase international stability by providing security to allies and Joint Forces ashore from short- and medium-range ballistic missile threats.

• Our future SSGN forces—specially modified Trident submarines—will provide large volume clandestine strike with cruise missiles and the capability to support and insert Special Operations Forces.

• An enhanced-capability Combat Logistics Force and Maritime Prepositioned Force will sustain a more widely dispersed and capable Navy/Marine Corps team.

It is our intention to continue to nurture this culture of readiness and invest in this vision in the years ahead.

III. OUR FISCAL YEAR 2004 BUDGET REQUEST

This past year, the Navy improved its current readiness by properly funding our current readiness accounts, deepening the growth and development of our people, and developing innovative operational concepts and capabilities.

This year, we intend to:

• Sustain our current readiness gains to support the war on terror;

• Deepen the growth and development of our people into the 21st century, high-technology personnel force that is our future; and

• Invest in our bold new Navy vision—Sea Power 21—to recapitalize and transform our force and improve its ability to operate as an agile, lethal, and effective member of our joint, networked warfighting team.

At the same time, we will continue to actively harvest the efficiencies needed to fund and support these priorities in both fiscal year 2004 and beyond. Our Navy budget request for fiscal year 2004 supports this intent and includes:

• Seven new construction ships, 2 more SSBN-to-SSGN conversions, 1 cruiser conversion, and 100 new aircraft;

• Investment in accelerated transformational capabilities, including the next-generation aircraft carrier (CVN–21), the transformational destroyer (DD(X)), and Littoral Combat Ship (LCS), the Joint Strike Fighter, the Advanced Hawkeye (E–2C RMP) Upgrade Program, and the EA–18G Electronic Attack aircraft;

• A 4.1 percent average pay increase in targeted and basic pay raises, and a reduction in average out-of-pocket housing costs from 7.5 percent to 3.5 percent;

• Investment in housing and Public Private Venture that will help eliminate inadequate family housing by fiscal year 2007 and enable us to house shipboard sailors ashore when their vessel is in homeport by fiscal year 2008;

• Continued investment in key operational readiness accounts that includes an increase in aviation depot maintenance funding; improvement in our annual deferred maintenance backlog for our ships, submarines, and aircraft carriers; and sustained funding for our ordnance, ship operations, and flying hours accounts;

• Navy-Marine Corps Tactical Aviation Integration, a process that will maximize our forward-deployed combat power, optimize the core capability of naval aviation forces, introduce 200 modern aircraft across the fiscal year 2004 to fiscal year 2009 program and save billions of dollars;

• Divestiture of aging, legacy ships, systems and aircraft, producing nearly $1.9 billion in fiscal year 2004 for reinvestment in recapitalization;

• Improvements in the quality of our operational training through a Training Resource Strategy; and

• Investment in transformational unmanned underwater vehicles (UUV), unmanned aviation vehicles (UAV), experimental hull forms, and other technologies.

A. Sustaining our Current Readiness

Your investment last year produced the most ready force in our history! Training, maintenance, spare parts, ordnance, and fuel accounts enabled our fleet to be ready

earlier, deploy at a higher state of readiness, and as we are witnessing today, build a more responsive surge capability. These investments were vital to sustaining the war on terrorism, assuring friends and allies and leading the Nation's global response to crisis.

• Ship operations and flying hours requests funds for ship operations OPTEMPO of 54.0 days per quarter for our deployed forces and 28 days per quarter for our non-deployed forces. The flying hours request receives an additional $137 million this year to sustain the investment level we established in support of last year's budget. This level of steaming and flying hours will enable our ships and airwings to achieve required readiness 6 months prior to deployment, sustain readiness during deployment, and increase our ability to surge in crisis. However, sustained OPTEMPO at levels above this force-wide target, as is beginning to occur during fiscal year 2003's time of accelerated and extended deployments, will cause our current year execution to run both ahead and in excess of the existing plan.

• Ship and Aviation Maintenance. Last year, we reduced our major ship depot maintenance backlog by 27 percent and aircraft depot level repair back orders by 17 percent; provided 32 additional ships with depot availabilities; ramped up ordnance and spare parts production; maintained a steady "mission capable" rate in deployed aircraft; and fully funded aviation initial outfitting. Our request for fiscal year 2004 aviation maintenance funding adds over $210 million to fiscal year 2003's investment and will increase the number of engine spares, improve the availability of non-deployed aircraft, and meet our 100 percent deployed airframe goals.

Our ship maintenance request continues to 'buy-down' the annual deferred maintenance backlog and sustains our overall ship maintenance requirement. The aggregate level of funding for ship maintenance actually declines from fiscal year 2003 to fiscal year 2004, due in part to the positive effects of the additional maintenance funding provided in supplemental appropriations in the previous year, in part to the accelerated retirement of the oldest and most maintenance-intensive surface ships, and as a result of scheduling and timing.

• Shore Installations. The fiscal year 2004 request provides 93 percent of the modeled sustainment cost for facilities, an increase from fiscal year 2003's 84 percent. Although the overall investment in facility recapitalization has reduced from last year, slowing the replacement rate of facilities, our increased investment in sustainment will better maintain existing facilities as we continue to pursue innovations to improve our base infrastructure. Our Base Operations Support funding request is based on sustaining the current level of common installation and important community and personnel support functions; we have factored in management and business efficiencies to reduce the cost of providing these services. We continue to support a Base Realignment and Closure effort in fiscal year 2005 to focus our future investment and improve our recapitalization rate in the years ahead.

• Precision-guided munitions receive continued investment in our fiscal year 2004 request with emphasis on increasing inventory levels for the Joint Stand-Off Weapon (JSOW), optimizing the Navy's Joint Direct Attack Munition (JDAM) production rate and commencing full rate production under multi-year procurement for the Tactical Tomahawk (TACTOM). Our partnership with the Air Force in several of our munitions programs will continue to help us optimize both our inventories and our research and development investment.

• Training readiness. The Training Resource Strategy (TRS) has been developed to provide for more complex threat scenarios, improve the training of our deploying ships, aircraft, sailors, and marines, and support the range and training technology improvements necessary to ensure the long-term combat readiness of deploying naval forces. The TRS has identified the training facilities necessary to provide this superior level of training as well. Their dispersed character is more like the battlefield environment our forces will face today and tomorrow and will better challenge our deploying forces—before they are challenged in combat. Our fiscal year 2004 request includes $61 million to support the TRS.

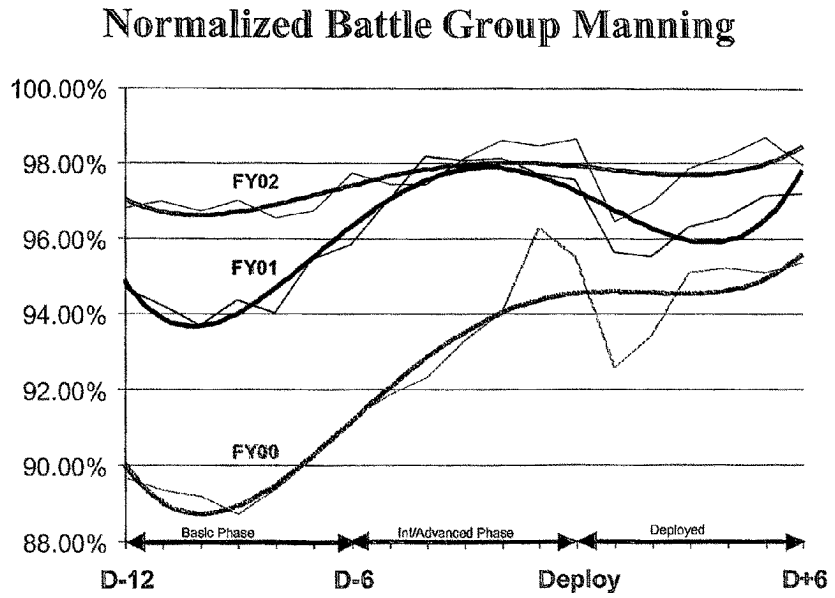
At the same time, encroachment and environmental issues continue to impact our ability to maintain an acceptable level of access to our valuable testing and training ranges and operating areas. As a result, we are looking for a balanced approach that would protect our environmental obligations and our ability to both train in realistic scenarios and develop transformational systems for our future. Our approach would be limited to only

the most critical issues, such as the designation of critical habitat on military lands designated for military training, and the scientific measurements that achieve an appropriate balance between our environmental concerns and our obligation to ensure our sailors are properly trained and our transformational systems are properly tested. We will focus the use of our ranges for these purposes while continuing to be an excellent steward of these environmental resources. We look forward to working with Congress and the American people on this important and urgent issue impacting our sailors and marines.

B. Deepening the Growth and Development of our People

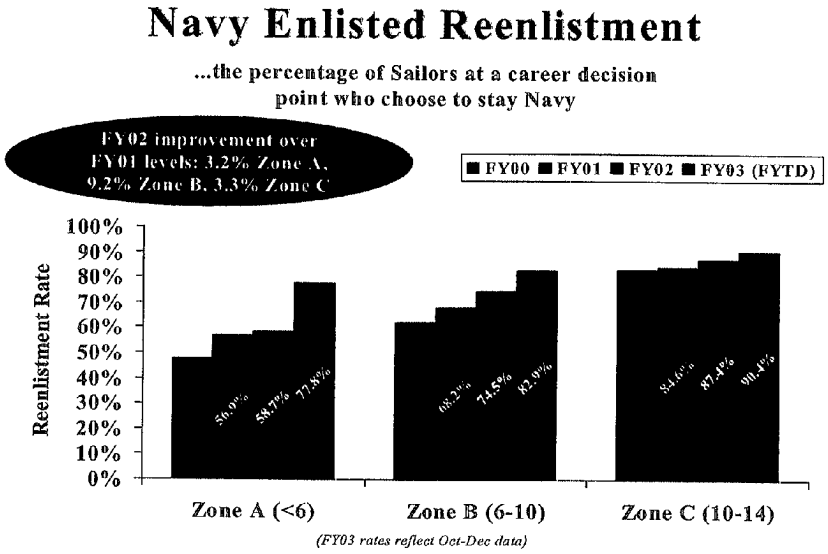
We are winning the battle for people. Thanks to superb leadership in the fleet and the full support of the American people and Congress, we are making solid progress in addressing long-standing manpower and quality of service issues vital to having what it takes to win the competition for talent today and tomorrow.

We are enjoying now the best manning I have witnessed in my career. With few exceptions, we achieved C–2 manning status for all deploying battle group units at least 6 months prior to deployment. These accomplishments enabled our Navy to develop a more responsive force, one that surged forward with the right people, at the right time, to fulfill our national security requirements.



Retention is at record levels and recruiting has never been better. We achieved a 58.7 percent Zone A (<6 years of service (YOS)) reenlistment rate, 74.5 percent Zone B reenlistment rate (6–10 YOS), and a Zone C (10–14 YOS) reenlistment rate of 87.4 percent in 2002. While we are also off to a great start in fiscal year 2003, we are instituting measures to ensure our annualized reenlistment rate meets our established goals (Zone A—56 percent, B—73 percent, C—86 percent).

Additionally, attrition for first term sailors was reduced by 23 percent from fiscal year 2001 levels. Ninety two percent of our recruits are high school graduates and 6 percent of them have some college education.



These tremendous accomplishments allowed us to reduce at-sea manning shortfalls last year and reduce our recruiting goals. We were also able to increase the overall number of E–4 to E–9s in the Navy by 1.3 percent to 71.5 percent working toward a goal of 75.5 percent by fiscal year 2007. This healthy trend allows us to retain more of our experienced leaders to manage and operate the increasingly technical 21st century Navy.

Targeted pay raises, reenlistment bonuses, improved allowances, enhanced educational benefits, retirement reforms, support for improved family services, and better medical benefits are making a difference and can be directly attributed to congressional support and the outstanding work of our Navy leaders in our ships, squadrons, bases, and stations.

Our fiscal year 2004 request capitalizes on last year's accomplishments and provides the opportunity to align our manpower and skills mix to balance our end strength and shape our 21st century workforce. As part of Sea Power 21's transformed organizational process improvements we will begin our Sea Warrior process.

Our goal is to create a Navy in which all sailors are optimally assessed, trained, and assigned so that they can contribute their fullest to mission accomplishment. It is important that we sustain our manpower progress by furthering our supporting initiatives to include:

- Perform to serve will align our Navy personnel inventory and skill sets through a centrally managed reenlistment program. This initiative makes Commander, Navy Personnel Command the final authority for first term reenlistments and extensions and will steer sailors in over-manned ratings into skill areas where they are most needed. It provides the training necessary to ensure these sailors will succeed in their new rating. Most importantly, it will help us manage our skills profile.
- Navy Knowledge Online introduces our integrated web-based lifelong learning initiative for personnel development and learning management. It connects sailors to the right information in a collaborative learning environment, tracks their individual skills and training requirements, and provides lifelong support between our rating, leadership, and personal development learning centers and our sailors.
- Task Force EXCEL (Excellence through our Commitment to Education and Learning) is transforming the way we train and educate our people. A more responsive organizational structure has been established to include the Navy Chief Learning Officer, Naval Personnel Development Command, and Human Performance Center. We also partnered with fleet, industry, and academia to improve individual training and education as well as with

colleges, through the Commissioned Navy College Program, to provide rating-related Associate and Bachelor degrees.

• Project SAIL (Sailor Advocacy through Interactive Leadership) will web-base and revolutionize the personnel assignment process by putting more choice in the process for both gaining commands and sailors. It will empower our people to make more informed career decisions and for the first time, create a more competitive, market-oriented process.

Our Sea Swap initiative is underway now, with the first crew-change on U.S.S. *Fletcher* taking place in the Western Australia port of Fremantle last month. We will continue this pilot with another crew change this summer and we intend to continue to examine pilot programs in optimal manning, rotational crewing, assignment incentive pay, rating identification tools, and rate training.

Your support of our fiscal year 2004 request for a targeted pay raise that recognizes and reaffirms the value of our career force and acts as an incentive to junior personnel to stay Navy is critical to staying the course. So, too, is continuing the reduction of average out-of-pocket housing expenses and the extension and enhancement of essential special pay and bonus authorities. All these efforts enable our Navy to sustain our forces in the war on terrorism, continue the increase in our Top 6 (E4 to E9), and develop the 21st century, high-technology personnel force that is our future.

C. Investing in Sea Power 21

Our 21st century Navy will be a joint, netted, dispersed power projection force and Sea Power 21 is the framework for how our Navy will organize, integrate, and transform. It prescribes a strategy-to-concepts-to-capabilities continuum by which current and future naval forces will exploit the opportunity that information dominance and rapid, highly accurate power projection and defensive protection capabilities bring to us.

Together, these concepts will compress our speed of response and provide the Nation with immediately employable, secure and sovereign forward "capability sets" from which to project firepower, forces, command and control, and logistics ashore.

The following describes the core capabilities, and our initial investments in our highest priority programs that support this vision.

Sea Strike is the projection of precise and persistent offensive power. The core capabilities include: Time Sensitive Strike; Intelligence, Surveillance, and Reconnaissance; Ship to Objective Maneuver; and Electronic Warfare and Information Operations. We are already investing in impressive programs that will provide the capabilities necessary to support Sea Strike; these include the following fiscal year 2004 priorities:

• *F/A–18E/F Super Hornet.* The F/A–18E/F is in full rate production and when combined with this year's request for the EA–18G, will be the backbone of Navy sea-based precision and time-critical strike, electronic attack and airborne tactical reconnaissance. It is in the fifth of a 5-year multi-year procurement (MYP) contract (fiscal years 2000–2004) that will yield $700 million in total savings. The second multi-year contract for 210 aircraft will yield approximately $1 billion in savings as compared to the single-year price. The Super Hornet employs new knowledge dominance technologies, such as the Joint Helmet Mounted Cueing System, Advanced Tactical Forward Looking Infrared System, Shared Reconnaissance System, and Multi-Informational Display System data link. It provides a 40-percent increase in combat radius, a 50-percent increase in endurance, 25 percent greater weapons payload, 3 times the ordnance bring back, and is more survivable than our older Hornets; most importantly, it has the growth capacity to remain a mainstay of our tactical aviation for years to come. Three of these squadrons are already deployed today at one-third the operational cost of our legacy F–14 aircraft. Fiscal year 2004 budgets for 42 E/F aircraft; this program maximizes the return on our procurement dollars through a multi-year procurement contract and a minimum economic order quantity buy.

• *EA–18G.* The EA–18G will replace the aging EA–6B Prowler for Joint Force electronic attack. Using the demonstrated growth capacity of the F/A–18E/F, the EA–18G Growler will quickly recapitalize our electronic attack capability at lower procurement cost with significant savings in operating and support costs and 3 years earlier than previously planned, all while providing the growth potential for future electronic warfare (EW) system improvements. It will use the Improved Capability Three (ICAP III) receiver suite and provide selective reactive jamming capability to the warfighter. This will both improve the lethality of the air wing and enhance the commonality of aircraft on the carrier deck. It will dramatically accelerate the replacement of our aging Airborne Electronic Attack capability. Engineering and developmental efforts commence with our fiscal year 2004 budget request.

• *JSF.* The Joint Strike Fighter will enhance our Navy precision with unprecedented stealth and range as part of the family of tri-service, next-generation strike aircraft. It will maximize commonality and technological superiority while minimizing life cycle cost. The fiscal year 2004 budget requests $2.2 billion in accelerated development funds; initial production is planned for fiscal year 2006.

• *MV–22.* The Joint Service MV–22 Osprey tilt-rotor, Vertical/Short Take-Off or Landing (V/STOL) aircraft represents a revolutionary change in aircraft capability. It will project marines and equipment ashore from our amphibious shipping, operationalizing Ship to Objective Maneuver from the Sea Base and improving our expeditionary mobility and force entry needs for the 21st century. The MV–22 program has been restructured, redesigned, rebuilt, and is undergoing testing to deliver an operationally deployable aircraft on the restructured schedule. The MV–22 will replace the Vietnam-era CH–46E and CH–53D helicopters, delivering improved readiness, upgraded capability, and significantly enhanced survivability. It is overwhelmingly superior to our legacy CH–46E providing twice the speed, five times the range, and three times the payload capacity.

• *Unmanned Air Vehicles (UAV).* We increased our commitment to a focused array of unmanned air vehicles that will support and enhance both Sea Shield and Sea Strike missions with persistent, distributed, netted sensors. We are initiating the Broad Area Maritime Surveillance (BAMS) UAV this year to develop a persistent, multi-mission platform capable of both Sea Shield and Sea Strike surveillance and reconnaissance of maritime and land targets, communications relay, and some intelligence collection. We have provided funding for testing, experimentation, and/or demonstration of the Fire Scout Demonstration Systems, Global Hawk Maritime demonstration and the Unmanned Combat Aerial Vehicle-Navy (UCAV–N) demonstration vehicle as well.

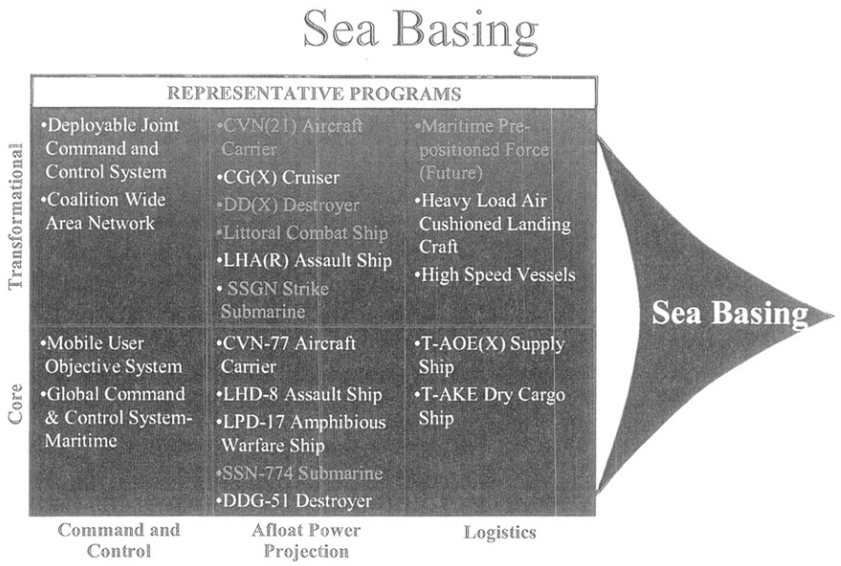
Sea Shield is the projection of layered, global defensive power. It will soon enhance deterrence and warfighting power by way of real-time integration with joint and coalition forces, high speed littoral attack platforms setting and exploiting widely distributed sensors, and the direct projection of defensive powers in the littoral and deep inland. It will enhance homeland defense, assure, and eventually sustain our access in the littorals and across the globe. Sea Shield capabilities include Homeland Defense, Sea and Littoral Control, and Theater Air and Missile Defense.

Our highest priority Sea Shield programs this year include:

- *Missile Defense.* Our Navy is poised to contribute significantly in fielding initial sea-based missile defense capabilities to meet the near-term ballistic missile threat to our homeland, our deployed forces, and our friends and allies and we are working closely with the Missile Defense Agency (MDA) to that end. As partners, U.S.S. *Lake Erie* will be transferred to MDA to facilitate a more robust testing program for missile defense. In turn, MDA is requesting funds to upgrade three Aegis guided missile destroyers (DDG) for ICBM surveillance and tracking duties and procurement of up to 20 standard missile interceptors to help us provide a limited at sea capability to intercept short- and medium-range ballistic missiles in the boost and ascent phases of flight. Our sea-based missile defense programs experienced tremendous success on the test range during 2002, and we look forward to building on these successes and developing a vital capability for our Nation.
- *CG Conversion.* The first Cruiser Conversion begins in fiscal year 2004. The Cruiser Conversion Program is a mid-life upgrade for our existing Aegis cruisers that will ensure modern, relevant combat capability well into this century and against evolving threats. These warships will provide enhanced land attack and area air defense to the Joint Force Commander. Core to these conversions is installation of the Cooperative Engagement Capability, which enhances and leverages the air defense capability of these ships, and the 5″/62 caliber Gun System with Extended Range Guided Munitions to be used in support of the Marine Corps Ship-to-Objective-Maneuver doctrine. These converted cruisers could also be available for integration into ballistic missile defense missions when that capability matures.
- *Unmanned Underwater Vehicles (UUV).* We will continue development of UUVs for minefield reconnaissance in the littoral and other surveillance missions, including funding that will result in initial operating capability for the Long-term Mine Reconnaissance System (LMRS) in fiscal year 2005.

Sea Basing is the projection of operational independence. Our future investments will exploit the largest maneuver areas on the face of the Earth: the sea. Sea Basing serves as the foundation from which offensive and defensive fires are projected—making Sea Strike and Sea Shield a reality. Sea Basing capabilities include: Joint Command and Control, Afloat Power Projection, and Integrated Joint Logistics. Our

intent is to minimize as much as possible, our reliance on shore-based support nodes.



Our highest priority investments include:

- *Littoral Combat Ship (LCS).* Our most transformational effort and number one budget priority, the Littoral Combat Ship will be the first Navy ship to separate capability from hull form and provide a robust, affordable, focused-mission ship to enhance our ability to establish sea superiority not just for our Carrier Strike Groups and Expeditionary Strike Groups, but for future joint logistics, command and control, and pre-positioned ships moving to support forces ashore. They will be dispersed and netted, both leveraging and enhancing the knowledge superiority and defense of the theater Joint Force. We will separate capability from hull form by developing 'tailorable' mission modules that we can use to "forward fit and fight" these small, minimally manned, persistent, high-speed vessels across the globe. They will counter anti-access threats, namely small, fast surface craft carrying anti-ship missiles, torpedo-armed ultra-quiet diesel submarines, and large numbers of inexpensive mines. They will be the backbone of our carrier and expeditionary strike group organic mine warfare capability. By employing networked sensors, modular mission payloads, a variety of manned and unmanned vehicles, and an innovative hull design, they will have the inherent capacity for further transformation by developing future modules for other missions. We will capitalize on DOD initiatives, spiral development, and new acquisition methods to streamline the acquisition process, and begin construction of the first LCS by 2005. The fiscal year 2004 budget accelerates development and construction of nine LCS in the FYDP, key to ramping surface force structure to Global CONOPs levels outside the FYDP.
- *DD(X).* The DD(X) advanced multi-mission destroyer will bring revolutionary improvements to precision strike and joint fires. Transformational and leap ahead technologies include: an integrated power system and electric drive; the Advanced Gun System with high rate of fire and magazine capability; the new Multi-Function Radar/Volume Search Radar suite; optimal manning through advanced system automation, stealth through reduced acoustic, magnetic, IR, and radar cross-section signature; and enhanced survivability through automated damage control and fire protection systems. Armed with an array of land attack weapons it will provide persistent, distributed offensive fires in support of Joint Forces ashore. The ca-

pacity in both hull form and integrated electric power system will allow us to spiral its development to CG(X) and other transformational systems, like the electro-magnetic rail gun, in the years ahead.

• *CVN–21.* We have accelerated transformational technologies from the CVNX development plan into CVN–21 while sustaining the CVNX–1 development schedule submitted last year. This is the first new carrier design since 1967. The fiscal year 2004 budget request provides $1.5 billion in RDT&E and advanced procurement for the first CVN–21 and programs for split-funded construction beginning in fiscal year 2007. The transformational technologies include a new electrical generation and distribution system, improved flight deck design with Electromagnetic Aircraft Launching System, improved sortie generation, enhanced survivability, reduced manning, and incorporation of a flexible infrastructure that will allow the insertion of new capabilities as they evolve. CVN–21 will be the centerpiece of our Carrier Strike Groups in the future and will replace U.S.S. *Enterprise* in fiscal year 2014.

• *Virginia-class submarine (SSN–774).* The first four ships of this class are under construction: *Virginia* will commission in 2004; the keel was laid for *Texas* (SSN–775) in July 2002; *Hawaii* (SSN–776) was begun in 2001; and *North Carolina* (SSN–777) in 2002. This class will replace *Los Angeles*-class (SSN–688) attack submarines and will incorporate new capabilities, including an array of unmanned vehicles, and the ability to support Special Warfare forces. It will be an integral part of the joint, networked, dispersed fleet of the 21st century.

• *SSGN Conversions.* We have requested two additional conversions in fiscal year 2004; these ships will be configured to carry more than 150 Tomahawk missiles, enabling covert, large-volume strike. The SSGN will also have the capability to support Special Operations Forces for an extended period, providing clandestine insertion and retrieval by lockout chamber, dry deck shelters or the Advanced Seal Delivery System, and they will be arrayed with a variety of unmanned systems to enhance the Joint Force Commander's knowledge of the battlespace. We will leverage the existing *Trident* submarine infrastructure to optimize their on-station time. The first two ships, the U.S.S. *Ohio* and U.S.S. *Florida,* enter the shipyard in fiscal year 2003 to begin their refueling and conversion. U.S.S. *Michigan* and U.S.S. *Georgia* will begin their conversion in fiscal year 2004. We expect this capability to be operational for the first SSGN in fiscal year 2007.

• *Maritime Prepositioning Force Future (MPF(F)).* MPF(F) ships will serve a broader operational function than current prepositioned ships, creating greatly expanded operational flexibility and effectiveness. We envision a force of ships that will enhance the responsiveness of the joint team by the at-sea assembly of a Marine Expeditionary Brigade that arrives by high-speed airlift or sealift from the United States or forward operating locations or bases. These ships will off-load forces, weapons, and supplies selectively while remaining far over the horizon, and they will reconstitute ground maneuver forces aboard ship after completing assaults deep inland. They will sustain in-theater logistics, communications, and medical capabilities for the Joint Force for extended periods as well.

Other advances in sea basing could enable the flow of Marine and Army forces at multiple and probably austere points of entry as a coherent, integrated combined arms team capable of concentrating lethal combat power rapidly and engaging an adversary upon arrival. The ability of the Naval Services to promote the successful transformation of deployment practices of the other Services will dramatically improve the overall ability of the Joint Force to counter our adversaries' strategies of area-denial and/or anti-access. We are programming RDTE funds to develop the future MPF and examine alternative sea-basing concepts in fiscal year 2008.

FORCEnet is the enabler of the foregoing capabilities, and the operational construct and architectural framework for naval warfare in the joint, information age. It will allow systems, functions, and missions to be aligned to transform situational awareness, accelerate speed of decisions, and allow naval forces to greatly distribute its combat power in the unified, joint battlespace. It puts the theory of network-centric warfare into practice. We are just beginning this effort and we have requested $15 million in funds to administer the development of FORCEnet, the cornerstone of our future C^4I architecture that will integrate sensors, networks, decision aids, warriors, and weapons. Programs that will enable the future force to be more networked, highly adaptive, human-centric, integrated, and enhance speed of command include:

• *E–2C Advanced Hawkeye Radar Modernization Program.* E–2 Advanced Hawkeye (AHE) program will modernize the E–2 weapons system by replacing the current radar and other aircraft system components to improve nearly every facet of tactical air operations. The modernized weapons system will be designed to maintain open ocean capability while adding transformational surveillance and Theater Air and Missile Defense capabilities against emerging air threats in the high clutter and jamming environment. The advanced Hawkeye will be a critical contributor to Naval Integrated Fire Control-Counter Air, and to Sea Strike and Shield. The fiscal year 2004 budgets over $350 million for continued development with first production planned for fiscal year 2008.

• *Navy and Marine Corps Intranet (NMCI).* NMCI continues to bring together Navy personnel, government civilians, and contractors into a single computing environment. This program is fostering fundamental changes in the way we support critical warfighting functions, conduct Navy business, and train and advance sailors. Fiscal year 2004 funding of $1.6 billion continues user seat rollout and cutover to the NMCI architecture, progressing toward a target end-state of 365,000 seats. Although NMCI seat cutover was slowed initially by the need to resolve the challenges of numerous, disparate legacy applications, the transition to NMCI has succeeded in eliminating more than 70,000 legacy IT applications and we are on track for the future.

Sea Trial. Commander, U.S. Fleet Forces Command (CFFC) is now in charge of our Navy's revitalized process of experimentation, and is rapidly developing emergent concepts and experimenting with new technologies to speed delivery of innovation to the fleet. CFFC will reach throughout the military and beyond to coordinate concept and technology development in support of future warfighting effectiveness. Embracing spiral development, the right technologies and concepts will then be matured through targeted investment and rapid prototyping.

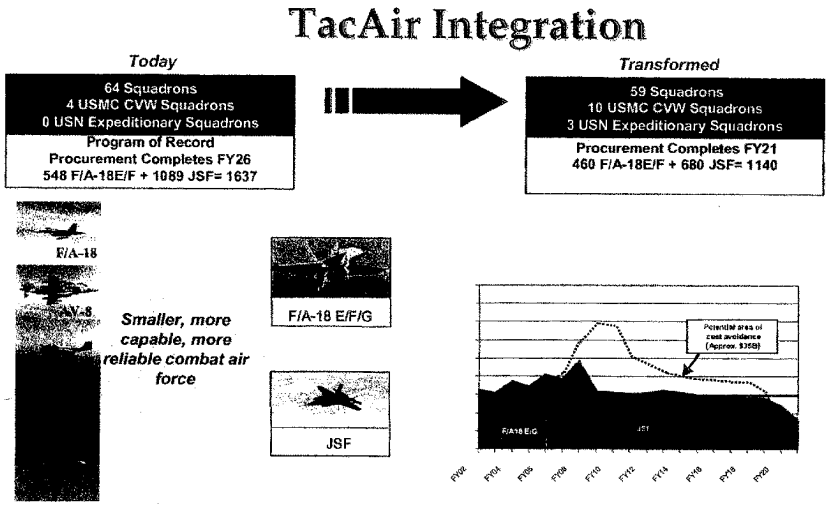
CFFC is working in concert with the U.S. Joint Forces Command to refine the Sea Trial process and integrate select wargames, experimentation, and exercises. We are already testing new operational concepts and technologies like the Collaborative Information Environment, Joint Fires Initiative, and the Navy Joint Semi-Automated Force Simulation in operations and exercises. We will continue to pursue evaluation of multiple platforms and systems, including experimental hull forms and electromagnetic rail guns, among others.

The Systems Commands and Program Executive Offices will be integral partners in this effort, bringing concepts to reality through technology innovation and application of sound business practices.

IV. HARVESTING EFFICIENCIES FOR TRANSFORMATION

We are working hard to identify and harvest the efficiencies needed to balance competing priorities and invest in our Sea Power 21 vision. Called Sea Enterprise, this process is intended to ensure our warfighting capability both now and in the future. It will help identify and produce those initiatives that both optimize our warfighting capability and streamline our organization and processes; to make it operate more efficiently, to reduce our overhead and to produce the savings needed for investment in recapitalization and our future. We have already identified several initiatives that have produced over $40 billion in savings and cost avoidance across the defense program—and many more billions outside the FYDP—to help fund our future. A few of the highlights include:

• USN–USMC Tactical Aviation (TACAIR) Integration plan shows the promise of cross-service partnerships. It will maximize forward deployed combat power, enhance our interoperability, more fully integrate our services, and save $975 million across the FYDP. This aggressive effort introduces 200 modern aircraft in the next 6 years while retiring legacy F–14, F/A–18A/B, S–3, and EA–6B airframes, and it reduces our F/A–18E/F and JSF total buy requirements by 497 aircraft while enhancing our warfighting capability. There is more than $30 billion in projected cost avoidance outside the FYDP as well.



Success depends upon proper numbers of E/F/G and on IOC of JSF

• Partnerships. We are pursuing other promising partnerships to include new munitions with the U.S. Air Force, common communications and weapons systems with the U.S. Coast Guard's Deepwater Integrated Systems program, and joint experiments with high-speed vessels with the U.S. Army. We will continue to leverage the gains made in programs like joint weapons development (JDAM, JSOW, AMRAAM) as well.

• Identifying savings within the force for recapitalization. Last year, we promised we would sharpen our focus on our force structure in the years ahead—to buy the ships, aircraft, and the capabilities needed for tomorrow's Navy. At the same time, we cannot overlook the important gains our focus on current readiness made these last few years; it produced the more responsive force on deployment today. As a result, we are obligated to look hard at the ways we could balance these priorities and our discretionary investments to both satisfy the near term operational risks and prepare for the long-term risks of an uncertain future. This year, we made some hard choices across the fleet to do more to address our future risk, sustain our current readiness gains, and strike this balance. We identified several aging, legacy systems with limited growth potential and high operating and support costs, and ultimately, we accelerated the retirement of 11 ships and 70 aircraft, divested more than 50 systems, and eliminated 70,000 legacy IT applications. We are using the savings to recapitalize, modernize other legacy platforms, and invest in Sea Power 21. These initiatives result in an acceptable operational risk in the near term because of our emphasis on sustaining our current readiness gains. Equally important, these difficult decisions yielded $1.9 billion for reinvestment and will do much to help reduce our future risk.

• Improved business operations and processes. We are improving both the way we run the fleet and our ability to control costs. The LPD–DDG swap produced savings sufficient to purchase a third guided missile destroyer in fiscal year 2004. We are using multi-year procurement contacts and focusing where possible on economic order quantity purchase practices to optimize our investments. We conducted the Workload Validation Review, and made Performance Based Logistics improvements. Other initiatives like piloting mission funding for two of our public shipyards, Enterprise Resource Planning, strategic sourcing, NMCI, and eBusiness are helping us find the funds necessary to emerge with the optimal force structure, a healthy industrial base and an efficient and appropriately sized infrastructure.

• Installation Claimant Consolidation. In October 2003 we will establish a single shore installation organization, Commander, Navy Installations Com-

mand (CNIC), to globally manage all shore installations, promote "best practices" development in the regions, and provide economies of scale, increased efficiency, standardization of policies where practicable and improved budgeting and funding execution. This initiative has the potential to save approximately $1.6 billion in the next 6 years.

We will continue to pursue the efficiencies that improve our warfighting capability. We are committed to producing the level investment stream that will help implement our bold new Navy vision and produce the number of future ships, aircraft, and systems we need to counter the 21st century threat. Harvesting savings for reinvestment is an important part of that effort, and we will continue to examine the potential efficiencies while weighing the operational risks, both now and in the future.

V. CONCLUSION

We are affecting positive change in our Navy. We will continue our culture of readiness and our commitment to transformation while pursuing those efficiencies that both make us good stewards of the public's funds, and improve our warfighting capability. I have made it plain to our men and women in the Navy that mission accomplishment means both warfighting effectiveness and resourcefulness.

At the same time, our people remain at the heart of all we do; they are the real capital assets in our Navy. We have invested heavily to do what is right for the people who are investing themselves in our Navy. "Growth and development" is our byline. As we look to the future, we will build on the impressive progress we have made in recruiting, assigning, and retaining our military and civilian professionals. Active leadership is making it happen today and will do so in the years to come.

There are still more challenges and opportunities in the year ahead. We will continue prosecuting the global war on terrorism. This entails being ready to respond—to surge and sustain warfighting capabilities—in support of the war, as well as preparing our force for the battles of tomorrow.

But by implementing our bold new Navy vision, harvesting efficiencies for reinvestment, adding potent new platforms to the fleet, and launching an integrated Navy-wide experimentation plan, we are creating the future capabilities and force structure required to counter these 21st century threats.

I thank the committee for your continued strong support of our Navy, our sailors, and our civilian shipmates. Working together, I am confident we will make our great Navy even better and provide our Nation with more power, more protection, and more freedom in the years ahead.

Chairman WARNER. Thank you very much, Admiral.

General Hagee.

STATEMENT OF GEN. MICHAEL W. HAGEE, USMC, COMMANDANT OF THE MARINE CORPS

General HAGEE. Mr. Chairman, Senator Levin, ladies and gentlemen of the committee: It is an honor for me to be here this morning. Mr. Chairman and Senator Levin, on behalf of those marines over in the Gulf, I would like to thank you very much for you and your delegation's recent visit over there. It meant a great deal to them to see you there and I thank you for that.

Chairman WARNER. We thank you.

General HAGEE. Sir, along with our sister services, the Navy-Marine Corps team continues to play a key role in the global war on terrorism and in the establishment of stability and security in many of the world's trouble spots. Marines, both active and Reserve, are operating side by side with soldiers, sailors, airmen, NGOs, diplomats, and many others in diverse locations around the globe from Afghanistan to the Arabian Gulf, the Horn of Africa, Turkey, the Georgian Republic, Colombia, Guantanamo Bay, and the Philippines.

Today marines are flying from Bagram Air Base in Afghanistan, from Navy carriers at sea, and from bases around the Arabian Gulf. In fact, 63 percent of the Marine Corps operating forces are

currently deployed and almost 90 percent are either deployed, forward stationed, or forward based.

Marine Corps operations throughout the past year have highlighted the versatility and utility of our expeditionary forces. Although we have had one of our busiest years in terms of operational deployments, participation in realistic worldwide exercises remain critical to supporting the theater security cooperation plans and ensuring that we maintained a ready and capable force.

Sir, your marines are ready. Along with the Navy, we are moving out with new organizational concepts, as mentioned by the CNO, including TACAIR integration and carrier and expeditionary strike groups that will make us more responsive and more flexible.

The fiscal year 2004 budget continues our effort to modernize and transform the force. Support that you in Congress have provided over the last 2 years has helped us make real progress in our modernization, transformation, personnel, and readiness accounts. Marines and their families have benefited from targeted pay raises and improved family housing and barracks. Increases in the basic allowance for housing have significantly reduced out-of-pocket cost of living expenses for our marines.

Regarding modernization and transformation, our top ten Marine Corps ground programs are adequately founded over the near-term. Among these are the Advanced Amphibious Assault Vehicle, the High Mobility Artillery Rocket System, and the Lightweight 155-Howitzer. On the aviation side, we are on track for funding for the V–22, the Joint Strike Fighter, and the Four-Bladed Cobra and Huey upgrades. Finally, we continue to make needed progress in readiness.

Having recently come from the operating forces, I can tell you there is a marked positive improvement in the way we have funded for readiness now compared to just a few years ago.

My main concern today echoes one of the concerns of the Secretary of Defense, in that without supplemental funding, we are spending tomorrow's dollars today. We are very grateful for the additional funding provided last week in the fiscal year 2003 omnibus appropriations bill. This funding provides a measure of relief to those programs that were bearing the costs of the global war on terrorism. Thank you for your timely action.

That said, our contingency requirements are significant and they greatly exceed the funding provided. We ask for your support and timely passage of the administration's upcoming supplemental request.

That concern notwithstanding, we are currently doing what we are trained to do. We are ready to support the Nation through whatever challenges may lie ahead. We are on solid ground regarding our mission and our direction. We will remain your only sea-based, rotational, truly expeditionary combined arms force ready to answer the call as part of an integrated Joint Force.

Sir, I would like to thank this committee on behalf of all the marines for your continued support, and I look forward to your questions.

[The prepared statement of General Hagee follows:]

PREPARED STATEMENT BY GEN. MICHAEL W. HAGEE, USMC

Chairman Warner, Senator Levin, distinguished members of the committee; it is my honor to report to you on the state of your United States Marine Corps. First, on behalf of all marines, I want to thank the committee for your continued support. Your sustained commitment to improving the warfighting capabilities of our Nation's Armed Forces and to improving the quality of life of our Service men and women and their families is vital to the security of our Nation, especially now, at this time of impending crisis.

I. INTRODUCTION

The Navy-Marine Corps team continues to play a key role in the global war on terrorism and in the establishment of stability and security in many of the world's trouble spots. Marines, both active and Reserve, are operating side-by-side in diverse locations, from Afghanistan, to the Arabian Gulf, the Horn of Africa, Turkey, the Georgian Republic, Colombia, Guantanamo Bay, and the Philippines. At the same time, the Corps maintains a host of other commitments around the world that support U.S. national security, military, and foreign cooperation and security strategies. The powerful capability that the naval services bring to our Joint Forces is a central element of our Nation's military power.

Marine Corps' operations throughout the past year have highlighted the versatility and expeditionary nature of our forces. Missions in support of Operations Enduring Freedom and Noble Eagle marked the most visible accomplishments of our forward-deployed forces. Marine Air Control Squadrons continue to provide air control, surveillance, and air traffic control support to Operation Enduring Freedom during their deployments to the Central Command area of responsibility. Elsewhere, the Marine Corps continues to support Operation Joint Forge in the Balkans by sending civil affairs teams to Bosnia.

Even as the Marine Corps saw one of our busiest years in terms of operational deployments, participation in realistic, worldwide exercises remained critical to supporting the Combatant Commander's Theater Security Cooperation Plans and ensuring that we maintained a ready and capable force. Over the last year, marines participated in more than 200 service, joint, and combined exercises. These included live-fire, field training, command post, and computer-assisted exercises. Participants varied in size from small units to Marine Expeditionary Forces. Overseas, Marine Expeditionary Units (Special Operations Capable) conducted exercises in Jordan, Italy, Croatia, Tunisia, the Philippines, Australia, Thailand, and Kuwait.

At home, Marine Reserve units were designated as "on call" forces to support the Federal Emergency Management Agency's role in homeland security. In addition, the Marine Corps also conducted numerous training operations and internal exercises. This important training helps develop individual and unit proficiency and competency. It also allows the Marine Corps to examine unit operational skills and ensures that each unit has the capabilities required to execute our full range of missions.

The Marine Corps continues to contribute to the Nation's counterdrug effort, participating in numerous counterdrug operations in support of Joint Task Force Six, Joint Interagency Task Force-East, and Joint Interagency Task Force-West. These missions are conducted in the Andean region of South America, along the U.S. Southwest border, and in several domestic "hot spots" that have been designated as High Intensity Drug Trafficking Areas. Individual marines and task-organized units are assigned to these missions in order to provide support for domestic drug-law enforcement throughout the United States, and to provide conventional training to military forces in South America that execute counternarcotics missions. Marine operational and intelligence teams also support Colombian military efforts to combat narco-terrorism. Marines of our Reserve Forces have executed the majority of these missions.

Our successes in these global operations and exercises have not been achieved alone. We have worked closely alongside the Navy, our sister Services, and Federal agencies to realize the true potential of joint, interoperable forces in the new environment of 21st century warfare. The superior operational and personnel readiness levels we have been able to maintain directly reflect the strong, sustained support of Congress in last year's National Defense Authorization and Appropriations Acts. In fiscal year 2004, we seek your continued support for the President's budget so we can consolidate the gains made to date, improve those areas where shortfalls remain, and continue transforming the way the Navy-Marine Corps team will fight in the 21st century.

II. BUILDING ON SUCCESS

The President's fiscal year 2004 budget, together with your support, will provide a strong foundation on which we can continue building on our successes. Our focus is on improving our ability to operate as an agile, lethal, ready, and effective member of a broader Joint Force that takes the complementary capabilities provided by each Service, and blends them into an integrated and effective force for meeting future challenges.

Increases in our Military Personnel accounts have a positive effect on the retention of our most valued assets—our marines. Given the increasing pressure to modernize and transform the force, the Marine Corps is constantly working to identify and assess program tradeoffs to enable the most effectively balanced approach between competing demands and programs. These tradeoffs occur within a larger context of the Department's overall program tradeoff decisions, which is driving the Navy and Marine Corps to work more closely than ever before in our planning, budgeting, and decisionmaking. An additional concern that complicates this process is the sizeable unfunded cost of the ongoing global war on terrorism.

Challenges also arise from the changing realities of our national security environment. The Marine Corps is committed to the idea that we will fight as an integral part of a joint team. We continue to place high priority on interoperability, shared concept development, and participation in joint exercises with our sister Services. Additionally, the security environment now demands that we pay more attention to our role in homeland defense, our critical infrastructure, and force protection—even as we deploy more forces overseas. These challenges demand that we balance competing priorities while remaining focused on maintaining excellence in warfighting.

Adapting to a Changing, Dynamic World

While we adapt the advantages of technology to meet the changing face of warfare, we draw strength from the unique culture and core values that make us 'marines.' We look for innovation in four broad areas to address future challenges:

- Transformational technology
- New operational concepts
- Refined organizations
- Better business practices

Innovative approaches culled from these efforts should provide insight into new capabilities that we can adapt for future warfighting. In this regard, we are currently engaged in an immediate and critical tasking to define how we, along with our partners in the Navy, intend to project naval power ashore in the 2015–2025 timeframe. This effort requires the intellectual rigor and participation of all the elements of our Marine Air-Ground Task Forces and is influencing the entire Marine Corps—from our structure and training to the way we will fight on future battlefields as an integral component of a Joint Force.

Technology and Experimentation

The plan for realizing future joint concepts consists of three closely related processes: (1) Joint Concept Development, (2) Joint Experimentation and Assessment, and (3) Joint Integration & Implementation. The overall process is more commonly known as Joint Concept Development and Experimentation. In order to ensure support and engagement throughout this process, the Marine Corps reorganized to establish three Joint Concept Development and Experimentation divisions under the cognizance of the Commanding General, Marine Corps Combat Development Command. These three organizations are key elements of Marine Corps transformation and enable full Marine Corps involvement in joint experimentation and transformation as well as the Navy's Sea Trial process for naval experimentation and transformation.

The Marine Corps Warfighting Laboratory maintains cognizance over Marine Corps-specific experimentation—with a focus on the tactical level—to develop enhanced warfighting capabilities for the future. Technologies and procedures are field tested in experiments conducted with the operating forces. In addition, the lab coordinates closely with the Office of Naval Research to identify promising technologies that support the next generation of warfighting capabilities.

New Concepts and Organizations

The Marine Corps is streamlining force development from concept to acquisition under the Deputy Commandant for Combat Development. Our Expeditionary Force Development System is a single system of dynamic functions integrated into a process that produces and sustains capabilities to meet the needs of the Marine Corps and the combatant commanders. The Marine Corps advocates for ground combat,

aviation combat, command and control, and combat service support, as well as the Marine Requirements Oversight Council, are key participants in the process. The Expeditionary Force Development System continuously examines and evaluates current and emerging concepts and capabilities to improve and sustain a modern Marine Corps. The system is compatible with and supports naval and joint transformation efforts and integrates transformational, modernization, and legacy capabilities and processes. This integrated, concept-based driver for transformation is currently working on several ideas that will influence the future Marine Corps.

Expeditionary Strike Groups. The Marine Corps and Navy are engaged in a series of experiments that will explore the Expeditionary Strike Group concept. This concept will combine the capabilities of surface action groups, submarines, and maritime patrol aircraft with those of Amphibious Ready Groups and Marine Expeditionary Units (Special Operations Capable), to provide greater combat capabilities to regional combatant commanders. In the near future, the Navy-Marine Corps team will conduct a pilot deployment on the west coast to test the Expeditionary Strike Group concept. Navy combatants have already been incorporated within the existing training and deployment cycle of the Amphibious Ready Group. This experiment will also allow us to test command-and-control arrangements for the Expeditionary Strike Group. It will provide critical information to support the future implementation of the concept and highlight any needed changes in service doctrine, organization, training, materiel, leadership and education, personnel, and facilities.

Tactical Aviation Integration. The Navy and Marine Corps team has embarked on a Tactical Aircraft (Strike-fighter) Integration plan that will enhance core combat capabilities and provide a more potent, cohesive, and affordable fighting force. This integration is the culmination of a long-term effort to generate greater combat capability from naval fixed-wing strike and fighter aircraft, and represents a shared commitment to employ the Department of the Navy's resources as judiciously as possible. This integration has been ongoing for several years, with four Marine Corps F/A–18 Hornet squadrons operating as part of embarked carrier air wings. This Navy-Marine Corps effort will guarantee that naval aviation will be integrated as never before, and will effectively support the Marine Air-Ground Task Force and the joint warfighter. Specifically, the integration plan:

- Reinforces our expeditionary ethos
- Provides a smaller, more capable, more affordable force for the Department of the Navy
- Integrates Marine strike fighters in 10 Navy Carrier Air Wings
- Integrates three Navy strike fighter squadrons into the Marine Unit Deployment Program
- Includes the global sourcing of all DON strike fighter assets and ensures their support to Marine Air-Ground Task Forces and regional combatant commanders
- Provides increased combat capability forward
- Complements the enhanced seabasing concept

A cornerstone of this plan is Department of the Navy funding and maintenance of legacy aircraft at the highest levels of readiness until the Joint Strike Fighter and F/A–18E/F replace them. This requires an unwavering commitment to level funding of strike fighter readiness across the Department of the Navy. These integration-driven readiness levels will allow the Navy-Marine Corps team to surge more aircraft than what is possible today.

Enhanced Networked Seabasing. Fully networked, forward-deployed naval forces and platforms that are integrated into our seabasing capability will provide naval power projection for Joint Force Commanders. These forces will use the sea as a means of maneuver, enabling a broad range of joint campaign operations. Sea-based operations incorporate, integrate, protect, and sustain all aspects of naval power projection, from space to the ocean floor, from blue water to the littorals and inland—without dependence on land bases within the Joint Operating Area. Seabasing will provide enhanced capabilities to the naval force, such as rapid force closure, phased arrival and assembly at sea, selective offload of equipment tailored for individual missions, and force reconstitution for follow-on employment. The traditional naval qualities of persistence and sustainment—enhanced by advanced force-wide networks—underpin the staying power and flexibility of the sea base. Naval platforms can stay on-station, where they are needed, for extended periods of time. The at-sea maneuverability of the seabase, coupled with advanced underway replenishment technologies and techniques, will ensure force readiness over time.

Integrated Logistics Capabilities. The Integrated Logistics Capabilities effort began as a unique collection of military, industry, and academic organizations col-

laborating to develop a future vision of Marine Corps logistics processes. The product is a set of transformational initiatives that will provide better support to the warfighter. The purpose of the Integrated Logistics Capabilities concept and process is to implement a transformation strategy, based on best practices, that provides the framework for the execution of agile, effective logistics support to the Marine Air-Ground Task Force, with the focus of streamlining the logistics chain.

Capabilities are being conceptually refined and incrementally validated in the operating forces as they are identified and recommended. An assessment of the Proof-of-Concept, published in November 2002 by the Center for Naval Analysis, reflected improved supply response time (68 percent reduction in time) and overall repair cycle time (33 percent reduction).

Over both the mid- and long-term, improved combat effectiveness and efficiencies in the logistics chain are expected. However, efficiencies cannot be fully realized until the people, process, and technology changes are applied across the entire operating force. The logistics transformation and process modernization, together with the cutting edge suite of technologies provided by the Global Combat Support System, will greatly enhance the combat capabilities of Marine forces.

Reestablishment of Air-Naval Gunfire Liaison Companies. We have validated the requirement to reestablish our Air-Naval Gunfire Liaison Companies (ANGLICO). These companies will provide our commanders a liaison capability with foreign area expertise to plan, coordinate, and employ terminal control of fires in support of joint, allied, and coalition forces. ANGLICO will be reestablished with a company on each coast and a separate brigade platoon in Okinawa. Each company will have a habitual relationship with the Reserves. Full operational capability is expected by late summer 2004.

Marine Corps-U.S. Special Operations Command Initiatives. Today, 105 marines are filling Special Forces billets around the world. In addition to providing the current Chief of Staff to U.S. Special Operations Command (USSOCOM), the Marine Corps provides support to and ensures interoperability with Special Forces through the actions of the SOCOM-Marine Corps Board. That board met twice in 2002 and developed initiatives in the areas of Operations, Training and Education, Communications/C^4, Information Operations, Psychological Operations, Civil Affairs, Intelligence, Aviation, Future Concepts, and Equipment and Technology. One of the initiatives, pursued in coordination with the Naval Special Warfare Command, is the Marine Corps' first sizeable contribution of forces to the Special Operations Command. Consisting of 81 marines and 5 sailors, a detachment has been organized, trained, and equipped to conduct special reconnaissance, direct action, coalition support, foreign internal defense, and other special operations missions, and will begin training at Camp Pendleton, California, in June 2003. They will subsequently transfer to the operational control of USSOCOM during October 2003 and deploy in April 2004 as augmentation to a Naval Special Warfare Squadron supporting both U.S. Pacific Command and U.S. Central Command.

Better Business Practices

We continue to seek out and use better business practices to achieve greater cost-effectiveness, improve performance, and sharpen our focus on our warfighting core competencies. In line with the competitive sourcing initiatives in the President's Management Agenda, we are increasing emphasis across our supporting establishment on competing our commercial activities with the private sector. We are complementing this initiative with continued development of an effective activity-based costing and management initiative across our installations. This allows us to focus on the true cost of various functions and services and to develop benchmarks that enable us to improve performance and to focus analyses on cost-saving initiatives. This will occur both in commercial areas that we compete, and in non-commercial areas that cannot be competed. Competitions completed to date have resulted in saving millions of dollars annually and returning almost 900 marines to the operating forces. We will continue to seek additional competition candidates. Activity-Based Costing and Management initiatives provided our installation commanders with cost and performance information that enabled them to save over $37 million last year. As we refine our databases, we expect continuing increases both in performance and cost effectiveness.

Through all of the efforts outlined above, the Marine Corps is building on today's success. As we build on our current capabilities, embrace innovation, and transform to meet the daunting conventional and asymmetric threats to U.S. security in the 21st century, we will continue to be the Nation's Total Force in Readiness, fielding warriors whose unique seabased expeditionary and combined-arms capabilities will be critical to success in crisis and conflict. In the process of balancing our programs to meet these goals, we will focus on two primary objectives: (1) our main effort—

maintaining excellence in warfighting, and (2) taking care of our marines and families.

III. TAKING CARE OF OUR OWN

Providing for the needs of our marines, their families, and our civilian marines remain among our top priorities. The most advanced aircraft, ship, or weapons system is of no value without highly-motivated and well-trained people. People and leadership remain the real foundations of the Corps' capabilities. It is important to note that the Marine Corps operates as a Total Force, including elements of both active and Reserve components. We continue to strengthen the exceptional bonds within our Total Force by further integrating the Marine Corps Reserve into ongoing operations and training.

Human Resources

End Strength. The congressionally-authorized increase in Marine Corps end strength to 175,000 in response to the global war on terrorism is very much appreciated. This increase of 2,400 marines allows us to sustain the increased missions associated with the activation of the 4th Marine Expeditionary Brigade (antiterrorism), enabling us to replace marines in the active units that we "borrowed" in standing up the brigade, and continue to provide the Nation with a robust, scalable force option specifically dedicated to antiterrorism.

Recruiting. Sustaining our ranks with the highest quality young men and women is the mission of the Marine Corps Recruiting Command. Recruiting Command has consistently accomplished this mission for more than the past 7 years for enlisted recruiting and 12 years for officer recruiting. These achievements provide the momentum fueling the continuous pursuit to improve the recruiting process and enhance the quality of life for our recruiters. To continue to attract America's finest youth, Recruiting Command has provided recruiters with the best tools available to accomplish their mission. The Marine Corps supports the National Call to Service Act and continues to work closely with DOD in developing an implementation policy. We expect to commence enlisting individuals under this program commencing October 1, 2003. The Marine Corps Reserve achieved its fiscal year 2002 recruiting goals, accessioning 5,904 non-prior service marines and 4,213 prior service marines. With regard to our Reserve component, our most challenging recruiting and retention issue is the ability to fill out our Selected Marine Corps Reserve units with qualified officers. The Marine Corps recruits Reserve officers almost exclusively from the ranks of those who have first served a tour as an active duty Marine officer.

While this practice ensures our Selected Marine Corps Reserve unit officers have the proven experience, knowledge, and leadership abilities when we need it the most—during mobilization—it limits the recruiting pool that we can draw from to staff our units. As a result, the Selected Reserve currently has a shortage of company grade (second lieutenant to captain) officers. We are exploring methods to increase the Reserve participation of company grade officers through increased recruiting efforts, increased command focus on emphasizing Reserve participation upon leaving active duty, and Reserve officer programs for qualified enlisted marines. We are also pursuing the legislative authority to provide an affiliation bonus to Reserve officers as an additional incentive for participation in the Selected Marine Corps Reserve.

Retention. Retaining the best and the brightest marines has always been a major goal of the Marine Corps. The Marine Corps is by design a youthful service, however, it is of paramount importance to retain the highest quality marines to lead our young force. History has proven that leadership in the Staff Noncommissioned Officer ranks has been the major contributor to the combat effectiveness of the Marine Corps. The Marine Corps has two retention standards. Our First Term Alignment Plan has consistently achieved its reenlistment requirements over the past 8 years. With one-third of the current fiscal year completed, we have achieved 87 percent of our first-term retention goal. A look at our Subsequent Term Alignment Plan (second tour and beyond) demonstrates that we have already retained 51 percent of our goal for this fiscal year. Both of these trends indicate healthy continuation rates in our career force.

Current officer retention is at an 18-year high, continuing the strong performance of the last 2 years. Despite this positive trend, we cannot become complacent. As a Corps, we will continue to target specific qualifications and skills through continuation pay. Military compensation that is competitive with the private sector provides the flexibility required to meet the challenge of maintaining stability in manpower planning.

Marine Corps Reserve—Partners in the Total Force. It is important to note that the Marine Corps operates as a Total Force, including elements of both active and Reserve components. We continue to strengthen the exceptional bonds within our Total Force by further integrating the Marine Corps Reserve into ongoing training and operations. Concurrent with the various initiatives underway to improve integration and update capabilities, the Marine Corps Reserve continues to support its primary mission of augmentation and reinforcement. Reserve units and marines provided over 1.8 million man-days in fiscal year 2002. Reserves provided support at all levels within the Marine Corps and at combatant commands and high-level staffs.

As we enter the 21st century, the overall structure of Marine Forces Reserve will retain the current basic structure. However, Marine Forces Reserve is currently working to create new capabilities identified as part of its comprehensive review. Both as a structural and an operational change, Marine Forces Reserve is increasing its operational ties with the Warfighting Commanders by improving lines of communication with our operating forces. These increased operational ties will improve interoperability, increase training opportunities, and enhance the warfighting capabilities of the Total Force.

Mobilization. Since the events of September 11, the Marine Corps judiciously activated Individual Ready Reserve (IRR) marines in response to both internal and joint operational requirements. The Marine Corps has maximized the use of individual volunteers to meet these requirements primarily in the areas of staff augmentation and force protection. In addition, Selected Marine Corps Units (SMCR) were activated for force protection requirements in support of homeland security. Because of emerging requirements associated with war on terrorism, we began involuntary recall of some of our IRRs on January 17, 2003.

Stop Loss. On January 15, 2003, the Marine Corps instituted Stop Loss across the Marine Corps to meet the emerging requirements associated with the expanding war on terrorism. Stop Loss was initiated to provide unit stability/cohesion, maintain unit readiness, meet expanded force protection requirements, and to reduce the requirement to active IRR personnel. We will continue to make judicious use of this authority and continue to discharge marines for humanitarian, physical disability, administrative, and disciplinary reasons. We have instructed our general officers to continue to use a common sense approach and have authorized them to release marines from active duty if it is in the best interest of the Marine Corps and the marine.

Education

Our leaders—especially our noncommissioned officers—throughout the entire chain of command have kept the Corps successful and victorious. Their sense of responsibility is the cornerstone of our hard-earned successes. We will continue to develop leaders who can think on their feet, act independently, and succeed. In the future, as today, leaders will continue to instill stamina and toughness in each individual while simultaneously reinforcing character that values honor, integrity, and taking care of our fellow marines—including treating each other with dignity and respect. Aggressive and informed leadership demands education, training, and mentoring. The importance of these key elements cannot be over-emphasized, and we must attend to each at every opportunity.

Marine Corps University has responsibility and authority for the planning, coordinating, and overseeing all education for our marines. The university is accredited by the Southern Association of Colleges and Schools to confer Masters degrees and currently offers a Masters of Strategic Studies at the Marine Corps War College, and a Masters of Military Studies at the Command and Staff College. The Chairman of the Joint Chiefs of Staff currently accredits the War College, Command and Staff College, and the College of Continuing Education for Phase I Joint Education. The President of the University also exercises command authority over the Expeditionary Warfare School and the Staff Noncommissioned Officer Academies worldwide. Notable accomplishments include Department of Education approval of a Masters of Operational Studies at the School of Advanced Warfighting, which is the first step toward our third Master's degree program.

Plans for the future include providing coordination and continuity through a coherent education plan for all marines. Our goal is to develop better warfighting leaders at all levels through an increased emphasis on relevant, structured education—at the graduate and undergraduate level—through both resident programs and distance education. Our intent is to greatly expand beyond the current emphasis on field-grade officers to support leadership development throughout the training and education continuum from marine private through general officer and to specifically bring senior noncommissioned officers further along the education continuum.

Our lifelong learning mission is to establish an integrated approach to learning; providing marines with one destination for enrollment in a college program, access to research tools such as books, periodicals, and the Internet, basic skills enhancement, and nonresident courses. In the face of a requirement to increase tuition assistance from 75 percent to 100 percent of tuition costs, and the rate from $187.50 per semester hour to $250 per semester hour, the Marine Corps added the necessary funds to expand the tuition assistance program in the fiscal year 2004 POM, which provides sustainment until fiscal year 2009.

Quality of Life/Quality of Service

Congressional support for increases in the Basic Allowance for Housing, as well as the aggressive Marine Corps use of the Public Private Venture (PPV) authority provided by Congress 5 years ago, are resulting in dramatic improvements to the housing of our marines and their families. Your continued support of our budget to help us achieve zero out-of-pocket expenses by fiscal year 2005 is greatly appreciated. The condition of other infrastructure, such as our barracks, workspaces, and training ranges, are also key factors in overall quality of life. While our infrastructure budgets reflect only the minimal essential military construction and re-capitalization necessary, they will allow us to achieve a re-capitalization rate of 67 years within the FYDP (down from 100 years in fiscal year 1999) and an improvement of our facilities readiness by fiscal year 2013.

We have been aggressively working to reduce the number of marines and civilian marines in non-core business areas, reapplying the marines to other operational requirements, and looking to optimize the use of civil service/contractor support where appropriate. Our track record is good. By example, we have reapplied marines in the garrison food service and mobile equipment areas back to the operating forces and competed a significant number of civilian positions. We will continue this process in line with the President's Management Agenda to review 50 percent of our positions by fiscal year 2008. By ensuring that quality of service remains high, we will help maintain our successful record of recruitment and retention.

Families

The Marine Corps is an expeditionary force prepared to deploy on short notice to accomplish assigned missions. While we may recruit marines, we almost always retain families—it becomes a family decision for a marine to stay for an entire career. Because of our expeditionary culture, deployment support is provided to marines and their families as part of our normal operations, largely through the efforts of Marine Corps Community Services. In addition to concerted efforts to improve housing and family services, security and support is offered during pre-deployment, deployment, and post-deployment phases of our operations. The Marine Corps also offers numerous programs focused on new parent support and the prevention of domestic violence, as well as services and programs for infants, toddlers, children, and teens. The Exceptional Family Member Program focuses on assistance to service personnel who have a family member with special needs before, during, and after Permanent Change of Station Orders.

Safety

Ensuring a safe command climate and working environment remains a critical concern for the Marine Corps. Often, the settings and the work our marines do are dangerous, but effective command climates continually mitigate those dangers through planning and leadership. Our safety programs are integral to force protection and operational readiness. Leadership and programming in safety awareness and standards are vital to providing marines and their families with a meaningful quality of life and service. On the heels of a very successful year prior, fiscal year 2002 was a disappointing year for safety in the Corps, as we lost more marines to mishaps in fiscal year 2002 than we had in any single year for the preceding decade. Our aviation mishap rate increased as well (from 1.40 to 3.9 class A mishaps per 100,000 flight hours).

These results do not indicate a lack of desire to safeguard marines. Rather, several factors were involved that made it particularly difficult to prevent mishaps through normal operational risk management efforts. Demographically, the Marine Corps is a younger force than the other Services (by an average 6 to 8 years), with maturity being a contributing factor in many mishaps; however, none of these factors are excuses for any failure to avoid preventable mishaps. Our leadership at all levels is deeply concerned about the negative trend and we are actively involved in multiple efforts to improve readiness and save our most precious marines and valuable equipment.

IV. OUR MAIN EFFORT—EXCELLENCE IN WARFIGHTING

Marines have a vision for the future, and we are moving forward with the modernization and transformation efforts needed to make this vision a reality. We fully understand that our vision cannot be achieved independent of our sister Services. Each of the Services has its own critical role to play in providing for our Nation's collective security; however, it is important that each of our contributions be, simultaneously, both unique and complementary. In particular, the Corps stresses the importance of our key partnership with the Navy. The Navy-Marine Corps team has never been stronger, or more necessary for our Nation.

We have stated that our first concern is with the care and stewardship of our people. This philosophy extends to the rest of our programming in that we focus on procuring the programs and equipment that will maximize the abilities of our marines to perform effectively in combat. With the foundation of requirements drawn from our emerging concepts, the Marine Corps is transforming its warfighting systems and assets throughout the elements of our Marine forces. The following examples reflect but a few of our transformation and modernization efforts. A more comprehensive description of the Marine Corps' entire acquisition program can be found in the publication entitled *Marine Corps Concepts & Programs 2003.*

Training

We believe the enduring wisdom, "you train the way you fight." Because of this, our training exercises are becoming ever more joint and combined to provide our marines with the experience they will need when called upon to respond to crises—because there is no doubt that we will work alongside our sister Services and coalition partners from other nations in such circumstances. The Marine Corps Combat Training Center at Twentynine Palms, California, focuses on integrated live fire and maneuver, as well as combined arms training, and will continue to play a central role as our foremost training and testing site for Expeditionary Maneuver Warfare. Ongoing initiatives will expand the role of the Combat Training Center and transform it into a "Center of Excellence" that will focus the training efforts across our operating forces. The Combat Training Center facilitates and supports the development of new concepts and capabilities, thereby reinforcing our combat effectiveness, enhancing joint interoperability, and supporting Dodd transformation efforts.

The future role of the Combat Training Center will grow beyond its current emphasis on battalion-level integrated live fire, combined arms training to support expanded training opportunities for all elements (ground, air, combat service support, and command) of Marine Air-Ground Task Forces up to and including a Marine Expeditionary Brigade. This will include enabling multi-site, distributed training evolutions that tie together units from various bases; and investing in technology that simultaneously links live, virtual, and constructive training. Additionally, improvements to the existing Expeditionary Air Field and construction of a large-scale urban training facility are being studied as possible ways to enhance training opportunities at Twentynine Palms. All of these efforts have the potential to increase the capability of our training center to support evolving training requirements, enabling the Corps to maintain its focus on uniquely marine training skills, while providing a vehicle to further integrate Marine Corps capabilities into those of the Joint Force.

Infrastructure

Marine Corps infrastructure consists of 15 major bases and stations and 185 Reserve facilities in the United States and Japan. In keeping with the Corps' expeditionary nature, these installations are strategically located near air and seaports of embarkation, and are serviced by major truck routes and railheads to allow for the rapid and efficient movement of marines and materiel. Recognized as the "fifth element" of the Marine Air-Ground Task Force because of the close link to the operating forces and their operational readiness, the condition of the Corps' bases and stations is of vital importance. With the ability to train as an integrated force being a fundamental requirement of the Corps, infrastructure development planning is designed to provide the facilities, training areas, and ranges (both air and ground) to accomplish this requirement while minimizing excess and redundant capacities. With increasing encroachment pressures and constrained fiscal resources, the Marine Corps face significant challenges to provide and maintain a lean and efficient infrastructure that fully meets changing mission demands.

Blount Island Acquisition. We are committed to undertake the wisest possible course to conserve our real property and, when necessary, to acquire any additional property that is mission critical. The Blount Island facility in Jacksonville, Florida, is a national asset that must be acquired to ensure its availability for long-term use. Blount Island's peacetime mission of supporting the Maritime Pre-positioning Force is vitally important, while its wartime capability of supporting large-scale logistics

sustainment from the continental United States gives it strategic significance. The facility will play a vital role in the national military strategy as the site for maintenance operations of the Maritime Pre-positioning Force for years to come. The Marine Corps plans to acquire the Blount Island facility in two phases. Phase 1, funded in fiscal year 2000 and fiscal year 2001, is currently in progress and will acquire interests in approximately 311 acres of land for the primary purpose of ensuring public safety on parcels adjacent to the leased central management operational area. Phase 2, planned for fiscal year 2004, involves acquisition of the central maintenance operational area, consisting of over 1,000 acres.

Training at Eglin Air Force Base. With cessation of training at Vieques, Puerto Rico, the established training ranges, quality of training support, and proximity to the ocean available at Eglin Air Force Base, Florida, can provide Naval Expeditionary Forces with an alternative training capability. Eglin's capabilities, location, and tenant commands provide the opportunity to facilitate joint training between Air Force, Navy, Marine Corps, Army and Special Operations Forces. Development of an expeditionary force training capability at Eglin can support the Secretary of Defense's vision and direction for training transformation and the development of a Joint National Training Capability. This type of training will be critical to naval expeditionary combat-readiness.

The Marine Corps proposes to execute two 10-day training exercises with a Marine Expeditionary Unit at Eglin each year. These exercises include a variety of scenarios such as amphibious landings, raids, mechanized operations, helicopter operations, and live fire and maneuver exercises. No final decision on training activities will be made until an environmental assessment currently underway is completed. The Navy and Marine Corps are actively working to develop and sustain cooperative relationships with the local community and the State of Florida.

Encroachment and Environmental Issues. Encroachment—defined as any deliberative action that can cause the loss of, or restrict, the use of land, airspace, frequency, or sea maneuver areas—is a serious threat to the operational readiness of the Corps. Urban and residential areas now surround many Marine installations that were originally remotely situated. This growth is often accompanied by pressure for access to Marine Corps resources, or demands to curtail Marine Corps operations to make them more compatible with surrounding land uses. The Corps' training lands often provide excellent habitat for threatened and endangered species, serving as islands of biodiversity amid the crush of densely populated urban areas that surround many of our installations. The Marine Corps is proactively engaged with Federal, State, and local agencies and governments, as well as nongovernmental organizations, to provide win-win solutions to these encroachment pressures, and ensure compatible land usage and environmental security without degrading training and mission readiness. Unimpeded access to our installations and ranges is critical to the Marine Corps remaining America's "Force in Readiness."

Our Nation has crafted a strong environmental code of conduct structured on a wide range of Federal, State, and local laws and regulations. Vague or inflexible environmental requirements, however, can present significant challenges for marines performing their primary mission. We support ongoing efforts to seek clarity and limited flexibility in certain environmental laws, so that we may more effectively balance our training requirements with our long-term environmental stewardship responsibilities. Our ultimate goal is to "train the way we fight," while preserving the natural environment. Today, marines at all levels perform their jobs with an increased awareness of potential environmental impacts. All of our bases and stations, for example, have implemented Integrated Natural Resource Management Plans and aggressive pollution prevention programs. The hard work does not end with these initiatives. The impact of encroachment on the Corps' ability to fully utilize its installations are varied and require constant vigilance and attention to ensure that operational readiness is not diminished.

Command and Control

Interoperability is the key to improving naval expeditionary command and control effectiveness, especially as we begin to integrate battlespace sensors residing in our manned and unmanned aerial, space, and ground vehicles. This is particularly true as the Marine Corps continues to work routinely with a range of government, nongovernment, and international agencies. The command, control, communication, and computer (C^4) end-to-end interoperability of the Global Information Grid will serve to enhance our ability to conduct joint, multi-department, and multi-agency operations through the use of technology, standards, architectures, and tools.

The Marine Corps works closely with the Joint Staff, combatant commanders, operating forces, and other Services to ensure that, where possible, joint concepts of operations are developed for common capabilities. An example of this process is oc-

curring with the development of the Joint Tactical Radio System, which combines numerous single function programs of current inventories into a single, interoperable, joint radio program that will provide secure digital communications while enhancing wideband tactical networking.

Intelligence

Our fiscal year 1996–2003 enhancements to Marine Intelligence Support are paying off during Operation Enduring Freedom and the global war on terrorism. Intelligence Support organic to Marine Forces combined with capabilities from our Marine Corps Intelligence Activity in Quantico, Virginia, to provide federated production (reachback) support has been validated through current operations. Marine Expeditionary Unit's forward deployed with organic all-source intelligence collection and production capabilities provide current intelligence support to Marine and Special Operations units. Our deployed signals intelligence, human intelligence, ground sensor, and reconnaissance teams provide the commander current situational awareness. All-source intelligence marines have the systems and training to integrate organic collection, network with the Joint Force on the ground, and effectively reach back to the Marine Corps Intelligence Activity and joint centers at secure locations.

Mobility

While the global war on terrorism has demonstrated the current capabilities of the Navy-Marine Corps team, our continuous transformation and modernization efforts hold even greater potential for increasing naval power projection capabilities in the future. Many of these efforts focus on increased speed, range, payload, and flexibility of maneuver units—mobility. This concept includes a vision of an all-vertical lift Air Combat Element, with the introduction of tiltrotor and short-take-off/vertical-landing (STOVL) aircraft. The following initiatives are some of the keys to the achievement of Marine Corps operational mobility objectives:

MV–22 Osprey. The MV–22 remains the Marine Corps' number one aviation acquisition priority. While fulfilling the critical Marine Corps medium lift requirement, the MV–22's increased capabilities of range, speed, payload, and survivability will generate truly transformational tactical and operational opportunities. With the Osprey, Marine forces operating from the sea base will be able to take the best of long-range maneuver and strategic surprise, and join it with the best of the sustainable forcible-entry capability. Ospreys will replace our aging fleets of CH–46E Sea Knight and CH–53D Sea Stallion helicopters.

KC–130J. The KC–130J will bring increased capability and mission flexibility to the planning table with its satellite communications system, survivability, and enhancements in aircraft systems, night systems, and rapid ground refueling. The KC–130J is procured as a commercial off-the-shelf aircraft that is currently in production. We are pursuing a multi-year program for purchase with the U.S. Air Force.

Advanced Amphibious Assault Vehicle. The Advanced Amphibious Assault Vehicle (AAAV) is the Marine Corps' only Acquisition Category 1D program and will be one of the principal enablers of the Expeditionary Maneuver Warfare concept. AAAV will provide never before realized high-speed land and water maneuver, a highly lethal day/night fighting ability, and advanced armor and nuclear-biological-chemical protection. This—coupled with a systematic integration into emerging service and Joint Command and Control networked information, communications, and intelligence architectures—will provide the Marine Corps with increased operational tempo, survivability, and lethality across the spectrum of operations.

Maritime Pre-positioning Force. The Maritime Pre-positioning Force (Future) will be the true enabler of primarily sea-based operations. When it becomes operational, the future Maritime Pre-positioning Force role will expand beyond that of today, and will provide a true seabasing capability. In this regard, it will serve four functions that the current capability cannot: (1) Phased at-sea arrival and assembly of units; (2) Selective offload of equipment and cargo; (3) Long-term, sea-based sustainment of the landing force; and (4) At-sea reconstitution and redeployment of the force. The naval services are exploring several new technology areas during the development of Maritime Pre-positioning Force (Future). Currently, the Maritime Pre-positioning Force (Future) program is conducting an analysis of alternatives to inform an acquisition decision by the Office of the Secretary of Defense.

High-Speed Vessel (HSV). High-speed vessels will enhance the Marine Corps' capability to perform a wide range of missions, from providing support to a theater security cooperation plan to sustaining long-term operations ashore. High-speed vessels can enhance our ability to conduct sea-based operations and use the sea as maneuver space. HSVs do not have the loitering and forcible entry capabilities of am-

phibious ships or the pre-positioning capacity of our Maritime Prepositioned Force Squadrons. However, their shallow draft, high speed, maneuverability, and open architecture make them a valuable link in a seamless logistics system that extends from source of supply to the sea base and the Joint Force, enabling a faster, more responsive, and capable deployment of a range of force modules from forward-based "hubs" such as Okinawa, or from the United States. The Marine Corps is currently testing and validating these concepts by employing a high-speed vessel in the Pacific theater as a form of strategic lift.

Power Projection Platforms. Combined with embarked marines, naval expeditionary warships provide the Nation with forward-presence and flexible crisis response forces. They also provide a truly unparalleled expeditionary forcible-entry capability. As part of a joint effort, the Marine Corps will remain capable of getting to the fight rapidly in order to decisively deter or defeat adversaries who try to impose their will on our country or its allies. A fiscally constrained programmatic goal of 12 Amphibious Ready Groups—one that deliberately accepts increased operational risk by attempting to balance force structure with available resources—does not change the warfighting requirement to lift the Assault Echelons of three Marine Expeditionary Brigades via future platforms for amphibious shipping. The Marine Corps supports the LPD–17 and a modified LHD–8 ("Plug Plus") ship design in fiscal year 2007 and will evaluate the adequacy of the R&D and SCN funding for the development of future LHA(R) ships for the remainder of the class.

Mine Countermeasure Capabilities. Naval expeditionary forces require an effective countermine warfare capability to open and maintain sea lines of communication and to operate within the littoral battle space. This is probably our greatest concern when it comes to projecting power in an anti-access environment. With respect to mine countermeasures, we require a family of capabilities that encompasses mine detection, location, neutralization, marking, and data dissemination. Designed to provide an organic mine countermeasures capability within operationally acceptable timelines and with acceptable levels of operational risk, this next generation of systems includes the Advanced Mine Detector, the Assault Breacher Vehicle, the Remote Minehunting System, and the Long-term Mine Reconnaissance System. Our most critical mine countermeasures deficiencies exist in the area near the shoreline through the high water mark and beyond, where detection and neutralization capabilities are extremely limited. Given the broad proliferation of known and unknown mined areas throughout the world, we must improve our ability to operate in this exceptionally lethal environment. Our intent is to leverage America's strength in technology to dramatically improve our ability to locate and avoid or neutralize mines and obstacles as necessary, and eventually remove the man from the minefield.

Fires and Effects

With the increased range and speed of expeditionary mobility assets, the landward area of influence of naval forces has increased by an order of magnitude. Consequently, the Nation requires weapon systems with correspondingly greater range, lethality, flexibility, and tactical mobility. A range of lethal and non-lethal fire-support programs is moving the Corps in that direction. The development and acquisition of non-lethal weapons systems will expand the number of options available to commanders confronted with situations in which the use of deadly force is inappropriate. The Marine Corps is developing a robust non-lethal capability that will address the non-lethal core requirements of clearing facilities, crowd control, and area denial. Additionally, we are enhancing the capabilities with which we can affect our adversaries that defy the traditional concept of weapons and fire-support means. Technical advances in directed-energy weapons hold much promise for future capabilities in this area.

Joint Strike Fighter. The Joint Strike Fighter is the next-generation strikefighter for the Marine Corps, Air Force, and Navy and will replace the Marine Corps' AV–8B and F/A–18A/C/Ds. The JSF family of aircraft will include a STOVL variant, a conventional take-off and landing (CTOL) variant, and an aircraft carrier-capable variant. Commonality between the variants will reduce both development and life-cycle costs and will result in significant savings when compared to the development of three separate aircraft. The Marine Corps requires that its STOVL variant be able to operate from large-deck amphibious ships, austere sites, and forward operating bases. The STOVL Joint Strike Fighter version can use from three to five times more airfields around the world than our existing conventional take-off and landing aircraft. Moreover, because the STOVL variant can operate from both conventional carriers and amphibious assault ship decks, it thereby effectively doubles the number of platforms available for seabased operations. The advantages of a stealthy STOVL strike fighter—capable of taking off from an expeditionary base on land or

at sea, flying at supersonic cruise, accomplishing its mission with advanced sensors and weapons, and then returning to its expeditionary site—are dramatic. The STOVL Joint Strike Fighter will provide the reliability, survivability, and lethality that marines will need in the years ahead, and transform the very foundations of naval tactical air power for the 21st century.

Naval Surface Fire Support. Our ability to provide fires in support of expeditionary forces operations beyond the beach has not kept pace with the dramatic increases in mobility. Critical deficiencies currently exist in the capability of the Navy to provide all-weather, accurate, lethal, and responsive fire support throughout the depth of the littoral in support of expeditionary operations. The Marine Corps supports the Navy's near-term efforts to develop an enhanced naval surface fire support capability with the fielding of the 5-inch/62-caliber naval gun and the development of extended-range munitions. In the far-term, the Marine Corps supports the development and fielding of the Advanced Destroyer [DD(X)], armed with 155 mm Advanced Gun Systems and Land Attack Missiles, to fully meet our naval surface fire support requirements. Our Nation's expeditionary forces ashore will remain at considerable risk for want of suitable sea-based fire support until DD(X) joins the fleet in significant numbers.

Indirect Fire-Support. A triad of indirect fire-support programs will provide needed firepower enhancements for marines in the near- to mid-term. The first element of the triad is the Lightweight-155 mm (LW–155) towed howitzer needed to replace our current M–198 howitzer, which is at the end of its service life. The LW–155 is a joint Marine Corps-Army effort that will meet or exceed all the requirements of the current system while significantly reducing its weight.

The second element, the High Mobility Artillery Rocket System (HIMARS), will deliver very high volumes of rocket artillery in support of the ground scheme of maneuver. The HIMARS will provide accurate, responsive general support and general support reinforcing indirect fires at long range, under all weather conditions, and throughout all phases of combat operations ashore. It will fire both precision and area munitions to a maximum range of 36 miles.

The Expeditionary Fire Support System, the third system of the land-based fire support triad, will accompany marines in any expeditionary mode of operation. It will be the primary indirect fire-support system for the vertical assault element of the ship-to-objective maneuver force. The Expeditionary Fire Support System, as a system, will be internally transportable by helicopter or tiltrotor aircraft to allow the greatest range and flexibility of employment for our future operations.

Information Operations. Defense planners are engaged in studies exploring Information Operations as a core military competency, fully integrated into both deliberate and crisis action planning. The Marine Corps intends to enhance our operational capability in both offensive and defensive Information Operations. Marine Corps doctrine and warfighting publications are being reviewed and revised to acknowledge Information Operations as a core warfighting capability fundamental to all operations spanning the spectrum of conflict with equal significance during noncombatant and humanitarian operations. We recognize a requirement to develop and train an Information Operations career force of trained professionals from the ground up in support of joint and interagency efforts.

New Weapons Technologies. The Corps is particularly interested in adapting truly transformational weapon technologies. We have forged partnerships throughout the Department of Defense, other agencies, and with industry over the past several years in an effort to develop and adapt the most hopeful areas of science and technology. Several notable programs with promising technologies include: (1) advanced tactical lasers, (2) high-power microwave, non-lethal active denial systems, (3) free electron lasers, (4) electromagnetic guns (rail guns), and (5) common modular missiles for aircraft.

Logistics and Combat Service Support

The Marine Corps logistics' vision is to significantly enhance the expeditionary and joint warfighting capabilities of our operating forces. Key warfighting capabilities encompassed in our future concepts—Enhanced Networked Seabasing and Ship-To-Objective-Maneuver—will be defined by our logistic capabilities and limitations. Hence, we are committed to exploring and implementing actions to increase combat power, operational versatility, and deployability. The concept of focused logistics in Joint Vision 2020 is guiding the Marine Corps as we strive to increase the sustained forward-deployed capability of our forces. Future force combat service support—and the Marine Corps logistics that enables it—will be changing as we shift more of our operations to the sea base. At the forefront of this effort is the Marine Corps Logistics Campaign Plan that outlines essential objectives and tasks based upon over-

arching Marine Corps, naval, joint, and DOD concepts and guidance. Our strategy encompasses four pillars:

Logistics Information Fusion and C2. A key to current and emerging warfighting capabilities is a robust and responsive logistics information technology capability—one that is integrated with our command-and-control architecture and interoperable with naval and joint systems. The Global Combat Support System-Marine Corps (GCSS–MC) and shared data environment, along with the Common Logistics Command and Control System, provide logisticians across the Marine Corps with a set of common logistics assessment, planning, and execution tools that are interoperable with the common operating picture.

Seamless Distribution. The single capability that defines Marine forces in a joint environment is its ability to sustain itself over an extended period of time. The principal goal is to move from defining sustainment in terms of deployable "days of supply" to a continuous uninterrupted sustainment capability for the force. A key element in achieving this is integrating current distribution processes and systems into broader naval and joint distribution processes. Achieving this capability will not only greatly enhance naval operations, but will be transferable to the task of sustaining Joint Forces and operations.

Enhanced Equipment Readiness. The bulk of our logistics effort and associated "footprint" is driven by its equipment-support activities. The Marine Corps seeks to reduce the required level of support for equipment by greatly improving the reliability, availability, and maintainability of ground tactical equipment.

Enterprise Integration. Achieving the emerging warfighting capabilities envisioned by future concepts require dynamic shifts in our logistics processes and organizations. Leading this effort toward logistics modernization is true enterprise integration consisting of GCSS–MC, process reengineering, and organizational reform.

V. CONCLUSION

The major challenges confronting the Marine Corps today center on organizing, training, and equipping our force to better support Joint Force Commanders, now and in the future. The modernization programs and the transformational systems that we are pursuing are key to our ability to meet the Nation's wartime, crisis, and peacetime requirements. We have put into place well-conceived programs addressing the needs of our marines and their families, the requirement to enhance the current readiness of legacy systems, the critical role infrastructure plays in present and future readiness, and the balance between modernization and transformation.

Our capabilities, combined with those of our sister Services and Special Operations Forces, form the integrated array of military capabilities America needs to confront an increasingly varied and threatening national security landscape. You can remain justifiably proud of what your Marine Corps contributes as America's forward engagement and expeditionary combined-arms force. We are grateful for the unwavering support you provide in this vitally important work.

Chairman WARNER. Thank you very much.

General Jumper.

STATEMENT OF GEN. JOHN P. JUMPER, USAF, CHIEF OF STAFF, UNITED STATES AIR FORCE

General JUMPER. Mr. Chairman, Senator Levin, distinguished members of the committee: Thank you for the opportunity to appear before you here today. I am proud to represent the airmen of our United States Air Force who serve proudly beside the soldiers, sailors, and marines represented at the table here today.

I would like to echo my support and my thanks for what this committee has done to improve the readiness of our forces around the world. There is nothing that contributes more to retention than to give that crew chief on the flight line the part he needs to fix his airplane. I share Vern Clark's sentiment; it has never been better in our United States Air Force, but it is due to the support that is felt from this committee, and we thank you for that.

This year we celebrate 100 years of powered flight. Many of those celebrations will go on in Senator Dole's State and around the

United States. We have come a long way since those days. We find ourselves in a much different world than we expected as we face a variety of threats from the linear battlefields of Iraq to the cave environments of Afghanistan.

But these challenges have been and will continue to be met through a force of dedicated airmen from the active duty, the Guard, and the Reserve. We have all had a busy year and our tempo continues unchecked. Over the skies of our own United States, we have flown more than 25,000 fighter sorties. Today, the 390th Fighter Squadron from Mountain Home, Idaho, is overhead the Capitol even as we sit here today. They have been joined by tanker, airlift, and surveillance sorties 75 percent of which have been flown by our National Guard and Reserve over the United States.

We have 14,000 airmen in and around Afghanistan today and have contributed to the joint effort nearly 70,000 sorties, including 8,000 tanker sorties, which are the heart and soul of our global strike effort.

All of these things are joined by efforts in Operations Northern and Southern Watch, where we have had 9,000 airmen deployed, have flown over 14,000 sorties in this past year, and along with our Marine and Navy colleagues have gotten shot at from the ground in Iraq virtually every day of the year.

We have also been engaged in significant humanitarian efforts around the world. We are all familiar with the disasters in Guam and, closer to home, the firefighting efforts that we have all been a part of.

All this to say that our tempo is high and our people have been sprinting for a long time, but they never fail to answer the call, as you saw during your visit to overseas, Mr. Chairman.

To deal with the tempo problems that have emerged since the demise of the Soviet Union and the demise of the Cold War, we have organized ourselves into air expeditionary forces, borrowing a chapter from the book of the Navy and the Marine Corps, trying to get ourselves into a deployable rotational scheme that puts predictability into the lives of our people. Again, this is a total force effort and includes our National Guard and Reserve.

This scheme has served to graphically point out many of our shortages in our personnel, manning, and critical skills. We are having to pull 23,000 of our airmen forward from future rotation force packages to deal with the current situation as we get ready for what the President might ask us to do in Southwest Asia. These shortages in combat engineers, medical, combat communications, and security forces are but a few examples of what we are trying to deal with.

Another point of stress is our aging aircraft. Along with our colleagues in the Navy, our average aircraft age is now about 23 years of age. It is the oldest we have ever had to deal with, and corrosion and fatigue problems that we have never seen before are emerging. We are looking at costs of repairing these aircraft rising at more than 10 percent a year.

Engines are another problem. We have had to add inspections that have increased our manhours by about 200,000 manhours just

to inspect engines in the field to catch problems before they happen.

Our space systems are little different. We have done a great job, with the help of this committee, to replace our aging launch fleet with the Atlas IV with the Atlas V and the Delta IV rockets as well as the EELV launch systems that are coming into service. It is hard to believe that our defense satellite program is now 32 years old and our Minuteman III systems are 30 years old, but it is true.

What are we doing to deal with these issues? You have seen the people. We have all seen the people. They will not quit. They will do whatever we ask them to do. Like Vern, our recruiting and our retention is better than it has ever been.

One of the things that we have been asked to do by our Secretary of Defense as a part of his personnel transformation initiative is to make sure that we are making the best use of our people. One of the initiatives we have had at Robins Air Force Base in Georgia is to blend a wing of National Guard and active and bring them together under the leadership of a National Guard wing commander to make best use of the great experience in that Guard unit and the ready response of our active personnel.

This, along with other initiatives, has been approved by our Secretary of Defense, and this includes educational opportunities. Our Secretary of the Air Force has gone with the Secretary of the Navy and blended the postgraduate education of the Naval Postgraduate School with the Air Force Institute of Technology so that we are not double-teaching and we share the same professors and the same curricula. We have even opened some postgraduate education opportunities to our enlisted force. Today at Wright-Patterson Air Force Base at the Air Force Institute of Technology, you will find seven Marine Corps enlisted along with eight U.S. Air Force enlisted enrolled getting master's degrees.

All these people, Mr. Chairman, are marvelous. I had the opportunity this year to go give Air Force crosses to the widows of two of our airmen who died in Afghanistan, Senior Airman Jason Cunningham and Tech Sergeant John Chapman. We have another of those heroes with us here today. I would like to introduce Staff Sergeant Allen Yoshida, who is seated behind me here tonight. Allen was badly wounded in Afghanistan and we have asked him as he recovers to be a part of our effort, another one of the Secretary of Defense's efforts, to streamline our acquisition process.

It is Sergeant Yoshida, with his direct operational experience, who is working directly with our acquisition community to get the pieces of equipment rapidly fielded that will make the job of the combat controller on the ground that much easier. We salute his service, Mr. Chairman.

All of these acquisition initiatives are not just with what we do on the ground, but we have seen similar acquisition initiatives streamlines into our remotely piloted aircraft as well. As Vern Clark pointed out, we have efforts with the United States Navy to put ourselves together where we can in the remotely piloted vehicle and the conventionally armed unmanned vehicle programs as well.

We have continued our development of the F/A–22. This airplane will give us 24-hour stealth capability for the first time. It has already got the qualities of the best air-to-air fighter in the world,

but its main focus will be on what it can do air-to-ground, and as it moves into the future, to add the ability to hit moving targets in and under the weather with the F–22.

Blending with the United States Army's concept of operations, which calls for brigade combat teams behind enemy lines, the F/A–22 will be able to reach the sergeants on the ground and put ordnance on the ground in support of them in a rapid way.

We are also working toward the notion of integrating, as Vern Clark said, and networking along with the other Services, and we have asked for the Multi-Sensor Command and Control Aircraft to be a part of this transformation. It will horizontally integrate at the machine level manned, unmanned, and space platforms. It will allow us to coordinate our defense to things like cruise missiles, to which we think we are very vulnerable today, and it will be able to join in quickly with naval and land forces to do rapid targeting.

Vern Clark likes to say that his favorite word for the decade is "persistence," and I could not agree with him more. As we do remotely piloted aircraft into the future, such as Predator and Global Hawk, and we bring the Predator B on line with its six weapon stations and the ability to loiter for more than 30 hours, we will see great leverage come to those on the battlefield.

Sir, I can tell you that one of the great improvements we have seen is in readiness and one of the great worries that I have is to make sure that we keep our training ranges available for all of our air, land, and sea forces. We have seen much about encroachment issues. Another one of Secretary Rumsfeld's initiatives is to maintain the edge we have in our training with his range readiness and preservation initiatives, which we ask for our support, Mr. Chairman.

Sir, there are many other initiatives under way, not only in the Air Force but in the Department of Defense, that have to do with streamlining processes and unloading administrative burdens. I think we are going to see great improvements in all these in the future.

Once again, let me thank all of the members of the committee for their support. Sir, your Air Force has never been more ready, and we are ready to do anything the President asks.

Thank you very much, sir.

[The prepared statement of General Jumper follows:]

PREPARED STATEMENT BY GEN. JOHN P. JUMPER, USAF

Mr. Chairman and members of the committee, the Air Force has an unlimited horizon for air and space capabilities. Our Service was borne of innovation, and we remain focused on identifying and developing the concepts of operations, advanced technologies, and integrated operations required to provide the Joint Force with unprecedented capabilities and to remain the world's dominant air and space force.

The Wright brothers' historic flight in 1903 ushered in the dawn of a dramatic era of scientific, cultural, and technological advances. As the Air Force celebrates this centennial of powered flight, we do so with the recognition that, despite the daunting challenges of a more dynamic security environment, the next hundred years will witness equally fantastic achievements. The 2003 Air Force Posture Statement reflects this optimism. In this report, we relate some of our accomplishments of 2002 as well as our vision of an innovative and adaptive force capable of guaranteeing American air and space dominance for the decades to come. Our successes are America's successes; they are the direct result of the selfless and unconditional service by men and women of the total Air Force and their families.

During the past year, and in the midst of combat and a variety of contingency operations, we evaluated, implemented, and validated a host of technological advances, organizational changes, and concepts of operation. These enabled us to deliver desired effects faster and with greater precision than at any time in the history of warfare. Such adaptation is characteristic of our Service, as airmen continually strive to push innovation ever forward en route to unprecedented air and space capabilities for combatant commanders, the Joint Force, and our Nation. In the year ahead, we will move our expeditionary Air Force closer to realizing the transformational imperatives of this new era, machine-to-machine digital integration of manned, unmanned and space assets, and joint command and control. Our concepts of operations leverage this integration, and expand our asymmetric advantages in air and space—advantages that are fundamental to defending America's interests, assuring our allies and coalition partners, and winning the Nation's wars.

We recognize the responsibility for America's security is not one we shoulder alone. We work tirelessly toward developing and training professional airmen, transitioning new technologies into warfighting, and integrating the capabilities of our sister Services, other government agencies, and those of our friends abroad to act in the most efficient and effective manner across all operations—from humanitarian to combat missions. At the same time, we pay special attention to the consolidating aerospace industry, our acquisition processes, and our critical modernization challenges, to ensure we will be able to draw upon our core competencies for decades to come.

Blessed with full endorsement from the American people, Congress, and the President, we will remain the world's dominant Air Force. We are honored to serve with America's airmen, and we sincerely appreciate the confidence in our commitment and capability to provide our great Nation with superiority in air and space.

INTRODUCTION

As America approaches the 100th anniversary of powered flight, the Air Force realizes that the Nation is only in the adolescence of air and space capabilities. Yet we envision a future that will manifest dramatic advances in propulsion, operational employment, weapons systems, information technology, education, and training for our air and space forces. It is a future of unprecedented, seamless integration of air and space capabilities with joint command and control at the operational level of war, and machine-to-machine integration at the tactical level. We are pursuing these changes—some elementary, others revolutionary—which will dramatically escalate the capabilities available to the Joint Forces of the United States, perpetuate American air and space dominance, and redefine the nature of warfare.

If there was any ambiguity about the nature of the security environment in this new century, the attacks of September 11, 2001 crystallized the setting. Just as the turmoil of the previous decade eluded prediction, the dynamic setting of the decades ahead poses even greater predictive challenges as centers of power and sources of conflict migrate from traditional origins. No longer will it suffice to prepare for real and perceived threats from nation-states. Instead, America must apply the sum of our operational experiences and experimentation to develop dynamic, flexible, and adaptable forces, capable of dissuading, deterring, and defeating a much wider range of potential adversaries, while still assuring our friends and allies.

This fluid setting underscores the need for doctrinal agility, and expeditious and responsive acquisition, planning, and execution across the spectrum of capabilities in support of homeland security—from the most difficult anti-access scenario to humanitarian relief. As new generations of technology proliferate among potential adversaries, we also are reminded of the need to keep pushing technology forward. In less than 100 years, we elevated from a Kitty Hawk biplane flying 100 feet on a 12-second flight, to a host of sophisticated, stealthy aerial vehicles capable of reaching any place in the world, and an array of satellites that circle the globe continuously. We do not rest on these achievements, but instead engage a new generation of innovation. Therefore, our mission is to make calculated research, development, and procurement decisions with the resolve to integrate all of our combat, information, and support systems into an enterprise architecture that contributes joint air and space capabilities to help win the Nation's wars.

Meeting these requirements also warrants our continued transformation into an expeditionary force with the culture, composition, and capabilities to fulfill our evolving operational tasks. As the scope of global contingencies requiring American involvement has multiplied, we have witnessed the substantial value of agility, rapid response, and integration. Thus, we are becoming ever more responsive in time, technology, and training, and in the process, we are elevating Air Force contributions to joint capabilities, while developing our airmen as joint warfighters.

A year ago, Secretary Rumsfeld laid out a number of key priorities for the Department of Defense (DOD). All of these—from pursuing the global war on terrorism and strengthening joint warfighting capabilities, to streamlining the DOD processes and improving interagency integration—demand across-the-board changes in the way the Defense Department operates. The Air Force has taken advantage of this opportunity to evaluate and strengthen our capabilities, and to fundamentally drive our investment strategy.

As we contemplate more than a decade of unprecedented success using air and space power, we recognize that we never fight alone. The emerging interdependence of joint, coalition, and alliance partnerships throughout a decade of contingency warfare has been a profound lesson learned. Through cooperative planning, we will realize the full potential of our Service—bringing to bear fully integrated air and space capabilities.

It is our imperative to approach this planning and integration with innovation and vision, fundamentally focused on capabilities. All of the Armed Forces are focusing on meeting the Quadrennial Defense Review's "1–4–2–1" force-shaping construct, by defining the fundamental capabilities required to meet the challenges of a changing world. These are: to defend the United States through homeland security; to deter aggression and coercion in the four critical regions of Europe, Northeast Asia, Southwest Asia, and the Asian littorals; to swiftly defeat aggression in overlapping major conflicts while being capable of decisive victory in one of those conflicts; and to conduct a number of smaller scale contingencies. A revitalized, capabilities-focused approach to operational military requirements will allow us to meet these missions.

Our focus on capabilities for an uncertain future has inspired us to adapt anew the way we organize, train, and equip our forces. We have begun by developing Task Force Concepts of Operations (TF CONOPs), which will define how we will fight and integrate our air and space capabilities with joint, coalition, and alliance forces. The requirements that emerge from these operational concepts will guide a reformed acquisition process that will include more active, continuous partnerships among requirement, development, operational, test, and industry communities working side-by-side at the program level.

This process can only be successful with the help of a vibrant defense industry. Yet today the aerospace industry is consolidating to a point that threatens to diminish the advantages of competition. This, in turn, can lead to loss of innovation, diminished technical skill base, lower cost efficiencies, and other challenges. We must foster increased competition to ensure the long-term health of an industrial sector critical to our national security. While the Air Force will continue to advance the vision and associated capabilities for air and space, we also must challenge industry in order for it to stay on the cutting edge of technology and efficient management practices.

Finally, transforming our force will not be possible without a process to educate, train, and offer experience to the right mix of Active Duty, Air National Guard, Air Force Reserve, and civilian airmen who understand the nature of our changing security environment. To achieve this, we will evolve what we have traditionally called the "personnel" function in new ways so as to blend Professional Military Education, advanced academic degrees, and assignment policies under the auspices of "Force Development."

This is the United States Air Force in 2003—inherently innovative, tirelessly dedicated, and comprised of the very best airmen and capabilities in the world to ensure American security and defend her interests. This is what our Nation expects, and we will continually meet that expectation.

WHAT WE DO

The United States Armed Forces exist to fight and win our Nation's wars, which no service can accomplish alone. The Air Force's pivotal role is to deliver fully capable and integrated air and space power to the Joint Force Commander (JFC). By dominating the media of elevation, the Air Force offers unique warfighting capabilities that leverage the strengths of surface forces and expand the range of potential effects.

Air and space are realms with unlimited horizons for discovery and development. While the Air Force has made tremendous strides in realizing the visions of early airmen and exploiting the operational potential in each medium, we know there is an array of capabilities as yet undiscovered. As the Air Force strives to realize these possibilities, we deliver a multitude of air and space achievements for joint warfighting.

Although relatively short, Air Force history reveals fundamental competencies that are core to developing and delivering air and space power—those unique institutional qualities that set the Air Force apart from the other Services and any other military force in the world. By identifying and keeping these competencies foremost in our vision, we are able to more effectively advance the unique capabilities, as well as the ultimate effects, the Air Force provides to the Joint Force and the Nation.

The Air Force continually develops areas of expertise that make us the preeminent air and space force in the world. Previously, we distilled these into six distinctive capabilities which we referred to as our "core competencies"—Air and Space Superiority, Global Attack, Rapid Global Mobility, Precision Engagement, Information Superiority, and Agile Combat Support. However, just as our concepts of operations and capabilities continuously evolve, so also does the way in which we articulate Air Force competencies. With deeper refinement, we learned there are more fundamental elements to what we are as an Air Force and how we develop our capabilities for joint warfighting. These are our underlying institutional air and space core competencies, those that, in fact, make the six distinctive capabilities possible: Developing Airmen, Technology-to-Warfighting, and Integrating Operations. These three air and space core competencies form the basis through which we organize, train, and equip and from which we derive our strengths as a service.

(1) *Developing Airmen:* The heart of combat capability

The ultimate source of air and space combat capability resides in the men and women of the Air Force. The potential of technology, organization, and strategy are diminished without professional airmen to leverage their value. Our Total Force of active duty, Guard, Reserve, and civilian personnel are our largest investment and most critical asset. They are airmen, steeped in our expeditionary Service ethos. Therefore, from the moment they step into the Air Force through their last day of service, we are dedicated to ensuring they receive the precise education, training, and professional development necessary to provide a quality edge second to none. The full spectrum capabilities of our Air Force stem from the collective abilities of our personnel; and the abilities of our people stem from career-long development of professional airmen.

(2) *Technology-to-Warfighting:* The tools of combat capability

The vision of airmen in employing air and space power fundamentally altered how we address conflict. As the leader in military application of air and space technology, the Air Force is committed to innovation and possesses a vision to guide research, development, and fielding of unsurpassed capabilities. Just as the advent of aircraft revolutionized joint warfighting, recent advances in low observable technologies, space-based systems, manipulation of information, precision, and small, smart weapons offer no less dramatic advantages for combatant commanders. The Air Force nurtures and promotes its ability to translate vision into operational capability in order to produce desired effects. Our innovative operational concepts illuminate the capabilities we need, allowing us to develop unsurpassed capabilities to prevail in conflict and avert technological surprise.

The F/A–22 is demonstrative of this ability to adapt technology to warfighting capabilities. Originally envisioned as an air superiority fighter, it has been transformed into a multi-role system. The F/A–22 not only brings to bear warfighting capabilities without equal for decades to come, but also includes those we did not foresee at its inception. Collectively, the platform's supercruise, stealth, maneuverability, and novel avionics will deliver the ability to create crucial battlefield effects to the hands of the warfighter, and allow access to revolutionary concepts of operations.

(3) *Integrating Operations:* Maximizing combat capabilities

Effectively integrating the diverse capabilities found in all four Services remains pivotal to successful joint warfighting. The Air Force contributes to this enduring objective as each element of air and space power brings unique and essential capabilities to the Joint Force. Our inherent ability to envision, experiment, and ultimately execute the union of a myriad of platforms and people into a greater synergistic whole is the key to maximizing these capabilities. In so doing, we are able to focus acquisition and force planning on systems that enable specific, effects-based capabilities, rather than on individual platforms.

Embedded in our exploration of innovative operational concepts is the efficient integration of all military systems—air, land, maritime, space, and information—to ensure maximum flexibility in the joint delivery of desired effects across the spectrum of conflict, from war to operations short of war. However, effective integration involves more than smart technology investment—it also requires investigation of efficient joint and service organization and innovative operational thinking. Thus,

investments in our people to foster intellectual flexibility and critical analysis are equally as important as our technology investments.

Collectively, our air and space core competencies reflect the visions of the earliest airmen and serve to realize the potential of air and space forces. We foster ingenuity and adventure in the development of the world's most professional airmen. We seek to translate new technologies into practical systems while we encourage intellectual innovation at every level of war. We drive relentlessly toward integration in order to realize the potential and maturation of air and space capabilities.

Our proficiency in the three institutional air and space core competencies underpins our ability to deliver the Air Force's six distinctive capabilities in joint warfighting. In turn, our capabilities enable desired effects across the spectrum of joint operations through our task forces drawn from our air and space expeditionary forces. The results of this relationship between core competencies, distinctive capabilities, and operational effects are manifest in the array of successful missions the Air Force accomplished in the past year and those we continue to execute.

Expeditionary Construct

Our core competencies reflect a legacy of innovation and adaptation to accomplish our mission. This point is underscored by the fact that, in spite of over a 30-percent reduction in manpower in the past 12 years, we have faced an exponential increase in worldwide taskings. Intensifying operations tempo (OPTEMPO) requires significant changes in the way our force trains, organizes, and deploys to support JFC requirements. We are a truly expeditionary force—the nature off our "business" is deployed operations.

The Air Force meets JFC requirements by presenting forces and capabilities through our Air and Space Expeditionary Force (AEF) construct. This divides our combat forces into 10 equivalent AEFs, each possessing air and space warfighting and associated mobility and support capabilities. A key element of our ability to deliver these tailored and ready expeditionary forces is our development of Task Force Concepts of Operations. Our TF CONOPs describe how we fight and how we integrate with out sister services and outside agencies. They are the fundamental blueprints for how we go to war. Combined with our AEF construct—the principal tool we use to present expeditionary wings, groups, and squadrons—TF CONOPs will guide our decisions in operational planning, enable us to provide scalable, quick-reacting, tasked-organized units from the 10 standing AEFs, and sustain our ability to ensure trained and ready forces are available to satisfy operational plans and contingency requirements.

The AEF construct incorporates a 15-month cycle during which two AEFs are designated as lead for a 90-day "eligibility" period. During this period, the two are either deployed or on alert for daily, worldwide expeditionary taskings, for which they are tailored and presented to the JFC as expeditionary squadrons, groups, and wings (depending on the specific requirement). Meanwhile, the remaining eight AEFs are in various stages of reconstituting, training, or preparatory spin-up. It is during this preparatory time (approximately 2 months) that we integrate the training-to-task of AEF squadrons immediately prior to their on-call window.

Yet, it is important to note that while our combat forces cycle through deployment vulnerability periods, they sustain wartime readiness throughout the 15-month training and preparation cycle—a critical drive of our 90-day eligibility window. Our AEF cycle thus precludes the need for "tiered" readiness by allowing our combat forces to remain current and capable for any contingency or operational plan.

While ensuring necessary capabilities for the JFC, AEF cycles allow us to provide our airmen with a more stable and predictable environment in which to train, refit, and equip. In addition, AEF scheduling makes it easier and more practicable for the Air Reserve Component (ARC) forces—Air Force Reserve Command (AFRC) and Air National Guard (ANG)—to bring their essential contributions to bear by allowing them to plan definitive absences from their civilian employment. This is a critical advantage of the AEF construct, as ARC forces comprise nearly half of the forces assigned to AEFs and contribute the majority of forces for some mission areas.

Operations in 2002

Confident in our air and space capabilities, and committed to meeting any mission tasked, the Air Force completed an unprecedented array of operations and exercises in 2002. From the mountain ranges in Afghanistan and the jungles of the Philippines to the deserts of the Middle East, and across every continent and body of water, the Air Force joined with land and naval forces to secure America's national objectives. With each mission, the Joint Force grows more capable as it applies vision, experimentation, and integration to every undertaking. We do not act as indi-

vidual services, but in concert as joint warfighters, as we prevail in the war on terrorism and in all undertakings.

Assuring our Nation's citizens, the Air Force conducts a range of alert postures involving more than 200 military aircraft at over 20 airbases for Operation Noble Eagle (ONE). In conjunction with unprecedented NATO airborne warning support and other U.S. assets, we have provided continuous combat air patrols over sensitive/high risk areas, and random patrols over other metropolitan areas and key infrastructure. Last year, we flew over 25,000 ONE fighter, tanker, airlift, and airborne warning sorties, made possible only through the mobilization of over 30,000 Reserve component airmen. In fact, the ANG and AFRC have effected over 75 percent of the total ONE missions. We will continue this critical mission, as we execute our most fundamental responsibility—homeland defense.

Throughout Operation Enduring Freedom (OEF), the USAF has maintained a continuous, steady-force presence in Afghanistan and the rest of the area of responsibility with more than 14,000 airmen. Air Force assets provide crucial intelligence and situation awareness, combat power, and support capabilities for the combatant commander. A key reason for American military success in the region is the performance of Air Force special operations airmen. Working in teams with other special forces, ground units, and coalition elements, airmen special operators heroically bring to bear the full weight of air and space capabilities—from the ground. They introduce our adversaries to the full lethality of our airmen, fully integrated on the ground, in the air, and from space.

Fully engaged in all aspects of the war on terrorism, from mobility to close air support, our aircraft and crews flew more than 40,000 OEF sorties in 2002—over 70 percent of all coalition sorties. Over 8,000 refueling missions marked the linchpin capability for the joint fight—the tanker force—while the magnificent achievements of airlift assets rounded out overwhelming mobility efforts. Simply put, Air Force mobility forces made operations in a distant, land-locked nation possible.

Beyond air operations, we operated and maintained several constellations of earth-orbiting satellites. In 2002, we launched 18 missions with a 100-percent success rate—including the first space launches using Evolved Expendable Launch Vehicles. These activities bolstered America's assured access to space and ensured vigorous, global intelligence, surveillance and reconnaissance (ISR), missile warning, precision navigation and timing, communications, and weather systems. In addition, manned, unmanned, and space ISR assets not only delivered unprecedented battlefield awareness, but with the Predator unmanned aerial vehicle (UAV), also introduced transformational combat capabilities.

ONE and OEF levied particularly heavy demands on our security forces. In CONUS and forward locations, increased alert postures warranted significant increases in security personnel who constitute a critical element of our force protection capabilities. These demands have raised our force protection posture worldwide and have forced us to adjust to a new "steady state" condition. Security forces bear the brunt of the adjustment effort despite a resultant baseline shortfall of approximately 8,000 personnel to meet the alert postures. In the near term, we involuntarily extended for a second year nearly 9,500 ARC security forces. However, in order to relieve these ARC forces, we concluded a 2-year agreement with the Army for short-term support, and initiated several ongoing efforts to combine technology, new processes, and some manpower shifts to achieve a long-term adjustment to this new era.

As we adjust, we continue to deliver force protection through the integrated application of counter and antiterrorism operations, and preparedness for chemical, biological, radiological, nuclear, and explosive (CBRNE) incidents. We employ a tailored selection and application of multi-layered active and passive, offensive and defensive measures. Intelligence and counterintelligence programs support this integrated effort and remain critical to our success. In this regard, we continued to develop and employ all-source intelligence systems, cross-functional intelligence analysis procedures, and an operational planning process to implement force protection operations that deter, detect, deny, and destroy threats. Our goal is to see first, understand first, and act first.

Though engaged in these security enhancements and the global war on terrorism, our combat operations were not limited to OEF in 2002. Iraqi forces fired on coalition aircraft over 400 times during 14,000 sorties supporting Operations Northern Watch (ONW) and Southern Watch (OSW). The Air Force maintained a continuous, regional presence of more than 9,000 airmen, while air and space assets provided vital intelligence, situation awareness, and indications and warning to monitor Iraq's compliance with United Nations' directives.

Whether on the ground or in the skies, our airmen also conducted a host of other missions above-and-beyond standing security requirements around the globe. Even

though the war on terrorism is our national military focus, airmen joined soldiers, sailors, and marines in the Balkans, South America, Europe, Asia, and around the world to assure our friends and allies, while deterring and dissuading our adversaries.

Worldwide humanitarian and non-combat evacuation operations missions remain other key tasks for Air Force personnel. In 2002, for example, airlift crews exceeded 2.4 million airdropped daily ration deliveries in Afghanistan, evacuated allied personnel at threatened locations around the world, and flew typhoon relief missions to Guam, while our explosive ordnance specialists removed unexploded munitions in Africa. Yet, while conducting unprecedented food, medical, civil engineering, and evacuation relief efforts in warring regions, we were also on call to perform critical, quick-response missions during natural or man-made crises at home. Through explosive ordnance disposal, firefighting, law enforcement support, and rapid medical response expertise, we conducted daily operations in support of local, State, and Federal agencies. During the wildfire season, ANG and AFRC C–130s equipped with modular airborne fire fighting systems flew nearly 200 sorties while assisting U.S. Forest Service firefighting efforts in numerous States. In addition, when Hurricane Lili endangered Louisiana, Air Force aeromedical and critical care forces rolled in with C–9 aircraft to transport and safeguard 40 patients from threatened hospitals.

Training Transformation

Training is a unique American military strength. As potential adversaries work to overcome our technological superiority, it is imperative we enhance this strength through improved proficiency at the tactical level and integration at the joint level. Training is integral to our core competencies and the critical enabler for military capabilities, so we are engaged with the other services, unified commands, and the Office of the Secretary of Defense (OSD) in developing and implementing a training transformation plan. Our objective is to train as we will fight and increase the joint context of our exercises through live, virtual, distributed, and constructive environments. It is the realism of this training that gives us the edge in combat. This involves not only modernizing the integration of space and information operations on our ranges, but also planning for their sustainment to meet future test and training missions while implementing environmentally sound use and management to ensure long-term availability. Additionally, to expand range support for current and emerging missions, we are embarking on a new effort to identify and procure environmental, airspace, and spectrum resources at home and abroad. Balancing competing economic and environmental needs for these resources is a growing challenge we face with our regulatory and community partners. To support this effort, DOD developed the Range and Readiness Preservation Initiative. This legislation recommends clarification to environmental laws that, as currently written and interpreted, can adversely affect resources available to support training activities at ranges.

Joint Chiefs of Staff (JCS) Exercises, Interoperability Training, and Experimentation

We advanced joint and combined interoperability skills with our sister services and those of 104 nations throughout 111 JCS exercises and Joint Task Force (JTF) experimentation, conducted in 40 foreign countries. Exercises ranged from large field training such as Bright Star, to command post exercises like Positive Response, to smaller, but equally valuable, humanitarian exercises, as in the school construction, well drilling, and medical clinic visits of New Horizons-Jamaica. These activities provided realistic training and enhanced the effectiveness of all participating nations' forces.

Task Force Enduring Look

Success in future operations hinges upon our ability to learn from previous operations and exercises. To ensure we learn from ongoing operations and adapt accordingly, we established Task Force Enduring Look (TFEL). TFEL is responsible for Air Force-wide data collection, exploitation, documentation, and reporting for our efforts in ONE/OEF. The objective for TFEL is clear—provide superior support to the warfighter and properly recognize and apply lessons learned during rather than only at the conclusion of these operations.

Through extensive investigation and analysis, TFEL examines joint warfighting effectiveness, determines implications, and shapes future Air Force transformation of expeditionary air and space power. The task force documents lessons learned in a variety of products that cover every conceivable subject matter. As derivative campaigns unfold, TFEL will broaden its assessments in follow-on reports. Applying the lessons in these reports and adapting from our past experiences will help ensure we prevail in future operations.

We are able to accomplish the full spectrum of air and space missions and improve our capabilities through lessons learned, by focusing on the best way to organize, train, and equip. Creativity, ingenuity, and innovation are the hallmarks of all that we do, all of which begins with our people.

WHO WE ARE

> *"No arsenal and no weapon in the arsenals of the world is so formidable as the will and moral courage of free men and women. It is a weapon our adversaries in today's world do not have. It is a weapon that we as Americans do have."* President Ronald Reagan, 20 January 1981

America is blessed with vast resources, and chief among these is her people. In the same way, the Air Force relies on the officers, enlisted, civilians, and contractors that comprise our Total Force—active duty, Guard, and Reserve—for cultural strength and unbridled skill. Air Force strength will never reside in systems alone, but in the airmen operating them. Nor will our capabilities improve solely through technology, but instead through the adaptive insight of our creative and selfless professionals.

Therefore, we recruit and retain a remarkably diverse group to ensure we reach the fullest potential of air and space forces. Their backgrounds reflect the cross-section of American culture—all races, religions, economic and educational backgrounds, skill and management levels, men and women—and make this Air Force the tremendous organization it is today. Just as diverse individual citizens find unity in the term American, our personnel embrace an identity and fundamental perspective as airmen.

The underlying qualities found in all airmen emanate from our core values—integrity first, service before self, and excellence in all that we do. Embedded in these core values are the inherent characteristics of our confident, capable airmen—courage, tenacity, professionalism, vision, pride, and, when faced with seemingly insurmountable obstacles, heroism. Indeed, today's airmen carry on the traditions and visions of the earliest generation of airmen while preparing for the challenges of the future.

The diversity of our airmen energizes the advancement of America's air and space power. Airmen embrace transformational ideas and seek to apply them to every aspect of the Air Force, from organizational constructs to concepts of operations and employment. They are able stewards of the Nation's space programs, advancing ideas and technologies for national security, as well as for the environmental and economic benefit of our Nation and the world. Yet, ultimately our standout advantage is our warrior airmen themselves, who demonstrate skills and dedication in combat unsurpassed by any in history. Whether maintaining safe skies across the United Nations' sanctioned no-fly one in Iraq, hunting down terrorists in the jungles of the Philippines, or paying the ultimate price while rescuing fellow Americans in a battle on an Afghan ridge, our airmen are proven combat veterans. Their selflessness resonates the very best of our Service.

Airmen are expeditionary—our natural state of operations is not "home station," but rather, deployed. After two successful cycles, our AEF construct has been validated as an effective means of meeting our Nation's expeditionary requirements. Yet we continue to enhance the construct by initiating significant organizational change to ensure nearly every airman belongs to 1 of the 10 AEFs. The effect has been a change to our airmen's mindset and culture, where an individual's AEF association cultivates an expeditionary perspective and a clearer appreciation for joint warfighting requirements and capabilities.

Force Development—A New Leadership Development Paradigm

In the past, we addressed aspects of career development, education, and assignments individually, but not necessarily in a coordinated, connected approach. Recognizing this, and to prepare for the future more ably, we introduced a systemic, deliberate force development construct that evolves professional airmen into Joint Force warriors. This construct coordinates doctrine and policies, concentrated to provide the right level, timing, and focus of education, training, and experience for all airmen, while encompassing personal, team, and institutional leadership skills across tactical, operational, and strategic levels.

In the 21st century, we need air and space warriors with mastery of their primary skills and others who possess competency beyond their own specialty. However, this diversity must be deliberate to ensure the correct skills are paired according to institutional requirements. Force development encourages many to obtain a deep perspective in their functional area, but at the same time offers the broader perspective we need to complement our leadership team. We begin this transformation with the

active duty officer corps and will eventually encompass the civilian, enlisted, and Reserve component to better meet the expanding challenges of tomorrow.

Education and Technical Training—Emphasis on Joint Leadership/Warfare

As opportunities resident in advancing technologies unfold, it is imperative that the Air Force be able to draw upon a vibrant collection of educated, technically skilled, and technologically savvy airmen—both uniformed and civilian alike. We are answering this fundamental need in fiscal year 2003 with aggressive and innovative initiatives to enhance the abilities and breadth of our force. Agile, flexible training is an essential investment in human capital, and our initiatives will ensure our investment delivers the right training to the right people at the right time.

In August 2002, we began our groundbreaking Enlisted-to-Air Force Institute of Technology (AFIT) program. An initial cadre of senior NCOs began receiving world-class, graduate education to optimize them for greater responsibilities and challenging follow-on assignments. We will also provide a major influx of officers into AFIT, Naval Postgraduate School (NPS), and civilian institutions. In addition, because more than 42 percent of our civilian force will be eligible for retirement in the next 5 years, we are committing significant resources to pay for advanced education as well as cross-functional career broadening.

Future military missions and contingencies will require greater sophistication and understanding of the security environment, and our expeditionary force requires airmen with international insight, foreign language proficiency, and cultural understanding. We are working diligently to expand the cadre of professionals with such skill sets and experiences. Our education initiatives will contribute to a major corporate culture shift that fosters appropriate development throughout our airmen's careers to meet evolving force requirements.

Diversity

Foremost among our efforts to enhance the capabilities of our airmen is a passionate drive for diversity. Diversity is a warfighting issue; it is a readiness issue. We must attract people from all segments of American society and tap into the limitless talents and advantages resident in our diverse population if we hope to reach our fullest potential as a fighting force. Nurturing rich representation from all demographics opens the door to creativity and ingenuity, offering an unparalleled competitive edge for air and space development. Today's multi-threat world also mandates that we invigorate in our airmen the ability to effectively think across cultural boundaries and functional paradigms (or stovepipes). We will thus recruit, train, and retain airmen without intellectual boundaries, uniquely capable of integrating people, weapons, ideas, and systems to achieve air and space dominance.

Recruiting

It takes tremendous effort to identify and develop such airmen, yet the return for the Nation is immeasurable. Increased advertising, an expanded recruiting force with broader access to secondary school students, and competitive compensation prepare us to meet recruiting goals. Despite the challenge of mustering such a diverse and skilled collection of Americans, we exceeded our fiscal year 2002 enlisted recruiting goals and expect to surpass fiscal year 2003 objectives. We will adapt our goals to meet new force objectives; however, the capacity limitations of Basic Military Training and Technical Training School quotas will continue to challenge Total Force recruiting efforts.

Officer recruitment presents similar challenges, yet we continue to attract America's best and brightest. However, we are particularly concerned with military and civilian scientists and engineers. We fell short of our accession goal for this group and have begun all-out recruitment and retention efforts for these critical specialties. For example, in fiscal year 2003 we plan to begin a college sponsorship program to attract scientists and engineers from universities lacking Reserve Officer Training Corps (ROTC) programs. In addition, we continue to find recruiting health care professionals especially difficult, so we are making adjustments to ensure improvement.

We will also closely monitor ARC recruitment. Historically, the ANG and AFRC access close to 25 percent of eligible, separating active duty Air Force members (i.e. no break in service.) Continued high OPTEMPO may negatively impact our efforts in attracting Air National guardsmen, as well as drawing separating active duty airmen to the Air Force Reserve. As a result, recruiting will have to "make up" a substantial portion of accessions from that market by developing alternatives.

Retention

The Air Force is a retention-based force. The critical skill sets we develop in our airmen are not easily replaced, so we expend every effort to retain our people—the

impetus for our "re-recruiting" efforts. Overall retention plans include robust compensation packages that reward service, provide for a suitable standard of living, ensure a high quality of life, and retain the caliber of professionals we need to decisively win America's wars.

For fiscal year 2002, it was difficult to calculate accurate retention results due to Air Force implementation of Stop Loss. Nonetheless, we continue to reap the benefits of an aggressive retention program, aided by bonuses, targeted pay raises, and quality of life improvements. Introducing the Critical Skills Retention Bonus for select office; specialties reinforces our commitment to target specific skill suffering significant retention challenges. However, many airmen retained under Stop Loss will separate throughout fiscal year 2003—a fact of particular concern for our rated force.

Bonuses and special pay programs continue to be effective tools in retaining our members. The ANG has placed particular emphasis on aircraft maintenance fields, security forces, and communication and intelligence specialists, among others, by offering enlistment and reenlistment bonuses, Student Loan Repayment program, and the Montgomery GI Bill Kicker program. Another example is the flexible Aviation Continuation Pay (ACP) program—an important part of our multi-faceted plan to retain pilots. In conjunction with our rated recall program, our fiscal year 2002 plan resulted in a substantial increase in committed personnel. We have a similarly designed ACP program in fiscal year 2003, and developed extensions to include navigators and air battle managers.

Summary

Regardless of AEF deployment or home station missions, our airmen accomplish their duties with firm commitment and resolute action. It's what we do. It's who we are: a practical, technically sound, ingenious force of uniformed and civilian airmen derived from this richly diverse nation to create the world's premier air and space power.

WHERE WE'RE GOING

The first hundred years of powered flight witnessed tremendous and enduring innovation. We commemorate this centennial during 2003 with the theme, *Born of Dreams, Inspired by Freedom,* which recognizes the remarkable accomplishments of generations of airmen. Today's airmen are equally impassioned to bring dreams to reality as we pursue our vision of tomorrow's Air Force, *Unlimited Horizon.* Through this vision, we build a bridge from today's existing capabilities to those required to win tomorrow's wars.

Ultimately, our success will be measured by our ability to provide our forces with assured freedom to attack and freedom from attack. Achieving such victory in tomorrow's battlespace will demand our full integration with fellow services, allies, and coalition partners—an essential part of the expeditionary construct. Through our security cooperation efforts, we build these international defense relationships and allied capabilities to ensure we have the access, interoperability, and international support for our worldwide commitments. Toward this requirement, we are working with our sister services to develop truly joint concepts of operations that integrate the full spectrum of land, sea, air, space, and information warfighting capabilities. When America places its men and women in uniform into harm's way, we owe them preeminent resources, planning, and organization to achieve victory over any adversary.

Capabilities-Based CONOPs

While adapting to the new strategic environment, our principal focus has been transitioning from a platform-based garrison force to a capabilities-based expeditionary force. No longer platform-centric, we are committed to making warfighting effects, and the capabilities we need to achieve them, the driving force behind our ongoing transformation. From this point forward, all of our operational, programming, and budget decisions will be supported by a predefined capability.

Our emerging TF CONOPs will help make this essential shift by providing solutions to a variety of problems warfighters can expect to encounter in the future. Whether detailing our plans for operating in an anti-access environment or identifying how to deliver humanitarian rations to refugees, TF CONOPs lend focus on the essential elements required to accomplish the mission. They cover the complete spectrum of warfighting capabilities (deep strike, information, urban, psychological operations, etc.) and enable us to tailor forces (expeditionary wings, groups, or squadrons) from existing AEFs to meet JFC's requirements. Responsibility for CONOPs development falls to the major commands, with a senior officer on the HQ

USAF air staff assigned to each CONOPs to serve as their "Champion," facilitating the process.

TF CONOPs directly support Secretary Rumsfeld's efforts to free scarce resources trapped in bureaucracy and push them to the warfighter. They will also be the focal point for a capabilities-based Program Objective Memorandum (POM). In support of this effort, our Capabilities Review and Risk Assessment analyzes and assesses shortfalls, health, risks, and opportunities, while prioritizing required future capabilities. This helps CONOPs developers articulate any disconnects between required capabilities and developing programs, while providing senior Air Force leadership an operational, capabilities-based focus for acquisition program decisionmaking. TF CONOPs include:

- Global Strike Task Force (GSTF) employs joint power-projection capabilities to engage anti-access and high-value targets, gain access to denied battlespace, and maintain battlespace access for all required joint/coalition follow-on operations.
- Global Response Task Force (GRTF) combines intelligence and strike systems to attack fleeting or emergent, high-value, or high-risk targets by surgically applying air and space power in a narrow window of opportunity, anywhere on the globe, within hours.
- Homeland Security Task Force (HLSTF) leverages Air Force capabilities with joint and interagency efforts to prevent, protect, and respond to threats against our homeland—whether within or beyond U.S. territories.
- Space and Command, Control, Communications, Computers, Intelligence Surveillance, and Reconnaissance (Space & C^4ISR) Task Force harnesses horizontal integration of manned, unmanned, and space systems to provide persistent situation awareness and executable decision-quality information to the JFC.
- Global Mobility Task Force (GMTF) provides regional combatant commanders with the planning, command and control (C^2), and operations capabilities to enable rapid, timely, and effective projection, employment, and sustainment of U.S. power in support of U.S. global interests—precision delivery for operational effects.
- Nuclear Response Task Force (NRTF) provides the deterrent "umbrella" under which conventional forces operate, and, if deterrence fails, avails a rapid scalable response.
- Air and Space Expeditionary CONOPs is the overarching context, which identifies and sequences distinctive capabilities and broad-based functions that air and space power provide the JFC to generate desired effects for national military objectives.

The Air Force is transforming around these Task Force Concepts of Operations. In addition to serving as a roadmap for operators, the TF construct will form the basis for resource allocation, future system acquisitions, and POM submissions in order to find capabilities-based solutions to warfighter problems.

Science and Technology (S&T)—Wellspring of Air and Space Capabilities

Reaching these warfighter solutions rests in large measure with research and development. Through robust investment and deliberate focus in science and technology, the Air Force invigorates our core competency of technology-to-warfighting. Combined with innovative vision, S&T opens the direct route towards transforming air and space capabilities. Therefore, we continue long-term, stable investment in S&T to ensure we realize future capabilities, as well as those that may immediately affect existing systems.

We are improving our S&T planning and collaboration with other services and agencies to ensure; we: 1) encourage an operational pull that conveys to the S&T community a clear vision of the capabilities we need for the future; 2) address the full spectrum of future needs in a balanced and well-thought out manner; and 3) enhance our ability to demonstrate and integrate promising technologies. Some of these new technologies—UAV systems, laser-based communications, space-based radar, and others—show clear promise for near-term, joint warfighting applications. Others present opportunities we can only begin to imagine. We are exploring each of these technologies, and our investment will deliver the required capabilities of our CONOPs.

Executive Agent for Space

Embedded in all of our TF ONOPs, and indeed within most military operations, is an extensive reliance on systems resident in space. The Air Force proudly fulfills the role of the Department of Defense Executive Agent for Space with confidence and enthusiasm. Our ability to execute this tremendous responsibility stems from

a natural outflow of our core competencies and distinctive capabilities. Accordingly, and in conjunction with the other Services and agencies, we are shaping a new and comprehensive approach to national security space management and organization.

Our capstone objective is to realize the enormous potential in the high ground of space, and to employ the full spectrum of space-based capabilities to enable joint warfighting and to protect our national security. The key to achieving this end is wholesale integration: through air, land, space, and sea; across legacy and future systems; among existing and evolving concepts of operations; and between organizations across all sectors of government. We will continue to deliver unity of vision, effort, and execution to fulfill our mission of delivering the most advanced space capabilities for America.

Drawing Effects from Space

Our horizon is truly unlimited, extending beyond the atmospheric environs of airpower to the reaches of outer space. Our proud Air Force tradition of airpower is joined by an equally proud and continually developing tradition of space power.

In the early days of the space age, only those at the strategic level received and exploited the benefits of space capabilities. The current state of affairs, however, is decidedly different. The former distinctions between classified and unclassified programs among military, civil, and commercial applications are growing increasingly blurred—in some cases, they are virtually seamless. In short, space capabilities now are woven deeply into the fabric of modern society, and they have altered forever the way we fight wars, defend our homeland, and live our lives.

It is in this context and this understanding of the widespread and increasing importance of space systems that we strive to meet present and future national security challenges by providing dominant space capabilities that will:

- Exploit Space for Joint Warfighting. Space capabilities are integral to modern warfighting forces, providing critical surveillance and reconnaissance information, especially over areas of high risk or denied access for airborne platforms. They provide weather and other earth-observation data, global communications, precision navigation, and guidance to troops on the ground, ships at sea, aircraft in flight, and weapons en route to targets. All of these capabilities, and more, make possible the tremendous success our joint warfighters achieve during combat operations.

  We will enhance these existing capabilities and, where it makes sense, pursue new ones such as the Transformational Communications System (TCS), which will strive to dramatically increase bandwidth and access for warfighters, and Space Based Radar, which will complement the airborne Joint Surveillance Target and Attack Radar System (JSTARS) while migrating Ground Moving Target Indicators (GMTI) into space. We will also develop methods and technologies to enhance our Nation's ability to conduct rapid and accurate global strike operations anywhere in pursuit of U.S. interests.
- Pursue Assured Access to Space. We cannot effectively exploit space for joint warfighting if we do not have responsive, reliable, and assured access to space. In August 2002, the new Evolved Expendable Launch Vehicle got off to a strong start with the successful launch of Lockheed Martin's Atlas V booster. Boeing's Delta IV program added to the Nation's quiver of modern launch vehicles with liftoff in November 2002. We will also pursue advanced and highly versatile reusable launchers and small expendables with extremely short response times to achieve long-term assured access, while taking the necessary steps to maintain and improve our space launch infrastructure.
- Preserve our Freedom to Act in Space. We must be able to act freely in space, or risk losing those capabilities essential to joint warfighting. We initiated efforts to increase our space situation awareness, beginning with the new Space Situation Awareness Integration Office at Air Force Space Command, and a similar program at the Space and Missile Systems Center. Future efforts are planned to develop strategy, doctrine, and programs to improve the protection of our own space capabilities while denying the benefits of joint space capabilities to our adversaries.

As it is with all Air Force capabilities, the most important resource for national space capabilities is neither technological nor fiscal—it is human. Our Space Professional Strategy fulfills a Space Commission recommendation to develop space professionals and nurture a cadre to lead our national security space endeavors at all levels in the decades ahead. These space-expert airmen will be the core stewards of space operations, and shoulder the responsibility for aggressively advancing joint warfighting capabilities into the high ground frontier.

Horizontal Integration of Manned, Unmanned, and Space Assets

The essence of transformation is found in leveraging the Nation's technological dominance to create maximum asymmetrical advantage. Airmen seek unrestricted boundaries when looking at war planning from a theater-wide perspective, or talking about national elements of power. Simply stated, it is in the way we think—we must take advantage of it.

Our foremost objective is to develop the capability to conduct rapid and precise operations to achieve desired effects and shape the battlespace for the Joint Force. This requires interfacing numerous DOD and national assets—the seamless, horizontal integration of manned, unmanned, and space-based systems. An essential element is designing systems that use digital-level, machine-to-machine conversations to expedite data flow and ensure the JFC receives timely, decision-quality information. Such integration will dramatically shorten the find, fix, track, target, engage, and assess (F2T2EA) cycle. In the end, we know that neither JFC's guiding operations, nor special operators putting iron on targets, care what source provides the target data. It is an effect they seek, and what we will provide.

Key to the warfighter's success is Predictive Battlespace Awareness (PBA). PBA requires in-depth study of an adversary well before hostilities begin. Ultimately, we want to be able to anticipate his actions to the maximum extent possible. PBA-derived insights allow us to utilize critical ISR assets for confirmation rather than pure discovery once hostilities begin. We are then able to analyze information to assess current conditions, exploit emerging opportunities, anticipate future actions, and act with a degree of speed and certainty unmatched by our adversaries.

Along this path, we are transitioning from collecting data through a myriad of independent systems (Rivet Joint, AWACS, JSTARS, space-based assets, etc) to a Multi-sensor Command and Control Constellation (MC2C) capable of providing the JFC with real-time, enhanced battlespace awareness. Today, this transition is restricted by the necessity to rely on low density/high demand (LD/HD) C^4ISR assets. The limitation inherent in LD/HD platforms forces us to shift their exploitation capabilities between theaters to cover emerging global threats and events. This suboptimizes overall battlespace awareness and limits our efforts at predictive analysis. In the interim, responsive space-based ISR assets will help mitigate our overstressed LD/HD systems. Yet ultimately, we need a synergistic combination of military and commercial assets, advanced data processing capabilities, and assured reachback to achieve true battlespace awareness.

In the future, a single widebody platform employing tunable antennas and sensors—Multi-sensor Command and Control Aircraft (MC2A)—will replace many of the C^4ISR functions of today's specialized, but independent assets. Air, ground, and space assets will comprise the MC2C, which will elevate Joint Forces Air Component Commanders' ability to command and control air assets. Additionally, every platform will be a sensor on the integrated network. Regardless of mission function (C2, ISR, shooters, tankers, etc), any data collected by a sensor will be passed to all network recipients. This requires networking all air, space, ground, and sea-based ISR systems, command and control (C2) nodes, and strike platforms to achieve shared battlespace awareness and a synergy to maximize our ability to achieve the JFC's desired effects.

Uniting joint and coalition information presents the most difficult challenge in providing one common operational picture for key decisionmakers. We are working closely with our sister services to eliminate the seams between existing systems and taking the necessary steps to ensure all future acquisitions are planned and funded to meet the interoperability requirements of future joint CONOPs.

A critical element of successful information merging is communications, as bandwidth is finite and requires careful management. Long-range or penetrating systems must communicate beyond the horizon despite adversaries' attempts to exploit or interrupt these links. To counter disruption, all systems must be reliable, secure, and bandwidth-efficient. The PBA construct facilitates this objective by eliminating constrictive, stove-piped communications systems while emphasizing networked operations.

We will realize the vision of horizontal integration in our TF CONOPs. GSTF, for example, will deliver the right-sized mix of assets with appropriate sensors capable of penetrating into enemy airspace. Such sensors may be low observable and/or expendable, mounted on either ISR platforms or imbedded into strike platforms. Sensors may consist of Special Operations Forces, inserted before the commencement of hostilities, who communicate with attack platforms during combat via secure electronic writing tablets, annotating targets, and threats on the imagery display with a stylus. As technology progresses, and where it makes sense, a significant portion of ISR functionality will likely migrate to space, affording 24/7 persistence and pene-

tration. Likewise, advanced defensive counterspace capabilities will afford these systems protection from enemy actions.

Combining manned, unmanned, and space-based assets with dynamic C2 and PBA transforms disparate collection and analysis activities into a coherent process, allowing the warfighter to make timely, confident, and capable combat decisions. This is what the Air Force brings to the joint fight. It is what air and space warriors are all about. We unlock the intellectual potential of airmen who think across the dimensions of mediums and systems capabilities for the joint warfighter.

Addressing the Recapitalization Challenges

Despite new CONOPs and visions for future capabilities, we cannot rely on intellectual flexibility to eradicate the challenge of old systems and technologies. Though creativity may temporarily reduce the negative impacts of aging systems on our operational options, ultimately there are impassable limits created by air and space system hardware issues.

We have made tremendous strides in modernizing and improving maintenance plans for our aircraft; however, the tyranny of age has introduced new problems for old aircraft. Reality dictates that if we completely enhance the avionics and add new engines to 40-year-old tankers and bombers, they are still 40-year-old aircraft, and subject to fleet-threatening problems such as corrosion and structural failure.

This is equally true for our tighter aircraft, where once cutting-edge F–117s now average over 15 years of age, and mainstay air-dominance F–15Cs are averaging nearly 20 years of service. With double-digit surface-to-air missile systems, next-generation aircraft, and advanced cruise missile threats proliferating, merely maintaining our aging fighter and attack aircraft will be insufficient. In fact, the dramatic advances offered in many of our TF CONOPs cannot be realized without the addition of the unique capabilities incorporated in the F/A–22. Simply stated, our legacy systems cannot ensure air dominance in future engagements—the fundamental element for Joint Force access and operations. We will thus continue executive oversight of F/A–22 acquisition in order to ensure program success. While keeping our funding promises, we will procure the only system in this decide that puts munitions on targets, and which is unequally capable of detecting and intercepting aircraft and cruise missiles.

Although ultimately solving these recapitalization challenges requires acquisition of new systems, we will continue to find innovative means to keep current systems operationally effective in the near term. We know that just as new problems develop with old systems, so too do new opportunities for employment, such as our employment of B–1s and B–52s in a close air support role during OEF. We will also pursue new options for these long-range strike assets in a standoff attack role for future operations.

Unlike with the aforementioned air-breathing assets, we cannot make service life extensions or other modifications to our orbiting space systems. Satellites must be replaced regularly to account for hardware failures, upgrade their capabilities, and avoid significant coverage gaps. Additionally, we must improve outmoded ground control stations, enhance protective measures, continue to address new space launch avenues, and address bandwidth limitations in order to continue leveraging space capabilities for the joint warfighter. We are exploring alternatives for assuring access to space, and a key aspect of this effort will be invigorating the space industrial base.

Finally, it is imperative that we address the growing deficiencies in our infrastructure. Any improvements we may secure for our air and space systems will be limited without a commensurate address of essential support systems. Deteriorated roofs, waterlines, electrical networks, and airfields are just some of the infrastructure elements warranting immediate attention. Our ability to generate air and space capabilities preeminently rests with the ingenuity of visionary ideas, yet intellectual versatility must be supported by viable systems and structures to realize our Service potential.

Organizational Adaptations

Commensurate with our drive to enhance air and space capabilities is our identification and development of organizational structures to aid these advances. In 2002, we initiated numerous adaptations to more efficiently and effectively exploit Air Force advantages for the joint warfighter.

Warfighting Integration Deputate

Comprehensive integration of the Air Force's extensive C^4ISR systems is paramount for our future capabilities. This requires an enterprise approach of total information-cycle activities including people, processes, and technology. To achieve this, we created a new Deputy Chief of Staff for Warfighting Integration (AF/XI),

which brings together the operational experience and the technical expertise of diverse elements (C^4ISR, systems integration, modeling and simulation, and enterprise architecture specialties.)

This new directorate will close the seams in the F2T2EA kill chain by guiding the integration of manned, unmanned, and space C^4ISR systems. AF/XI's leadership, policy, and resource prioritization will capitalize on the technologies, concepts of operations, and organizational changes necessary to achieve horizontal integration and interoperability.

Success has been immediate. AF/XI worked with the Deputy Chief of Staff for Air and Space Operations to champion increased Air Operations Center weapon system funding in the fiscal year 2004 POM, which accelerated the stabilization and standardization of the weapon system. Subsequently, the base-lined weapon system now has a modernization plan, which is both viable and affordable. AF/XI also led analysis that highlighted imbalances among collection and exploitation capabilities. As a result, we plan to accelerate ground processing and exploitation capabilities within the future years defense program to close the gap. Major contributions in management of the complex information environment will continue, as AF/XI makes better use of scarce resources, allowing the Air Force to provide the joint warfighter the capabilities to dominate the battlespace.

Chief Information Officer (AF/CIO)

Partnered with AF/XI, the AF/CIO shares responsibility to spearhead the transformation to an information-driven, network-centric Air Force. These two organizations orchestrate the integration within our information enterprise, and establish processes and standards to accelerate funding and ensure priorities match our integrated information vision.

The AF/CIO's specific mission is to promote the most effective and efficient application, acquisition, and management of information technology resources under an enterprise architecture. The goal is to provide the roadmap for innovation and to function as a blueprint for the overall leverage of valuable information technology. Enterprise architecture will use models and processes to capture the complex interrelationships between the Air Force's systems and platforms. A resultant example is basing Information Technology (IT) investment decisions on sound business cases, approved Air Force standards, and, ultimately, how a particular technology contributes to specific capabilities. Additionally, we are institutionalizing enterprise architecting as a key construct in defining mission information requirements and promoting interoperability.

Currently, the wide variety of IT standards limits C2 processes and information and decision support to our warfighters. The AF/CIO–AF/XI team is tackling this and all other integration challenges as they develop an enterprise architecture that spans the entire Air Force, while also staying in harmony with other services' efforts.

Blended Wing

We do nothing in today's Air Force without Guard, Reserve, and civilian personnel working alongside active duty airmen. A fundamental initiative of Air Force transformation is formalizing this integration under the Future Total Force (FTF). As part of the FTF, we are pursuing innovative organizational constructs and personnel policies to meld the components into a single, more homogenous force. FTF integration will create efficiencies, cut costs, ensure stability, retain invaluable human capital, and, above all, increase our combat capabilities.

A key effort is to "blend," where sensible, units from two or more components into a single wing with a single commander. This level of integration is unprecedented in any of the Services, where active duty, Guard, and Reserve personnel share the same facilities and equipment, and together, execute the same mission. In essence, blending provides two resource pools within a single wing—one, a highly experienced, semi-permanent Reserve component workforce, offering stability and continuity; the other, a force of primarily active duty personnel able to rotate to other locations as needs dictate.

The first blended wing opportunity arose with the consolidation of the B1–B fleet. The move left behind an experienced but underutilized pool of Guard personnel at Robins AFB, GA. Meanwhile, the collocated 93rd Air Control Wing (ACW) (active duty E–8 Joint STARS), suffered from high tempo and low retention. Hence, Secretary Roche directed that the two units merge, and on 1 October 2002, the blended wing concept became a reality with the activation of the 116th ACW.

The 116th ACW tackled many pioneering challenges: from legal questions surrounding the command of combined active-Reserve component units, to programmatic issues with funding the program from two separate accounts, to integrat-

ing different personnel systems used by each component. Airmen from both components are working through these issues successfully, making the 116th an example for future FTF blending. Yet, some additional Title 10 and Title 32 provisions still need to be changed to make the FTF a reality. Meanwhile, parallel efforts, such as placing Reserve pilots and maintenance personnel directly into active duty flying organizations under the Fighter Associate Program, add to this leveraging of highly experienced reservists to promote a more stable, experienced workforce.

As organizational constructs, blending and associate programs lay an important foundation for a capabilities-based, expeditionary air and space force, which are inherently flexible and ideal to meet rotational AEF requirements. In a resource-constrained environment, blending promotes efficiencies and synergies by leveraging each component's comparative strengths, freeing funds for modernization while sustaining combat effectiveness, and effecting warfighting capabilities greater than the sum of its parts.

Combat Wing

The comprehensive evaluations in our ongoing transformation include examining our wing structure. Given all of the lessons gleaned from expeditionary operations over the past decades, we asked, "Could we derive advantages in revised wing organization for both force development and combat capability" The answer was "Yes," and we enacted changes to create the Combat Wing Organization (CWO).

The central aspect of the CWO is the new Mission Support Group. This will merge former support and logistics readiness groups, and contracting and aerial port squadrons, as applicable. Within this group, we will hone expeditionary skills from crisis action planning, personnel readiness, and working with the joint system for load planning and deployment, to communications, contingency bed down, and force protection. Currently, all of these aspects exist in skill sets that none of our officers have in total. But the new expeditionary support discipline will address this and provide our officers the expertise in all aspects of commanding expeditionary operations. With this reorganization, each wing will now have one individual responsible for the full range of deployment and employment tasks—the Mission Support Group Commander.

The restructuring will retain the operations group; however, group commanders will become more active in the operational level of war. Squadron commanders will be role models for operators in the wings, ready to lead the first exercise and combat missions. Similarly, we will establish a maintenance group responsible for base-level weapons system maintenance and sortie production rates. Like their operator counterparts, maintenance squadron and group commanders will be role models for all wing maintainers. Meanwhile, medical groups will retain their current organization, although we are working changes to home and deployed medical operations for future implementation.

Flying and fixing our weapons systems, as well as mission support, are essential skill sets. Each requires the highest expertise, proficiency, and leadership. The new wing organization allows commanders to fully develop within specific functional areas to plan and execute air and space power as part of expeditionary units, while also giving maintenance and support personnel focused career progression. This reorganization does not fix something that is broken—it makes a great structure exceptional.

Acquisition and Business Transformation

To achieve our vision of an agile, flexible, responsive, and capabilities-based air and space force, we must transform the processes that provide combatant commanders with air and space capabilities. An example of this in action is the Air Force's efforts to carry out the responsibilities of DOD Space Milestone Decision Authority (MDA). The Secretary of the Air Force delegated those responsibilities to the Under Secretary of the Air Force, under whose leadership immediate benefit was realized. Adapting an effective process already in use at the National Reconnaissance Office (NRO), the Under Secretary instituted a new streamlined space acquisition program review and milestone decisionmaking process. This new process was used for the first time in August 2002 in developing a contract for the National Polar-orbiting Operational Environmental Satellite System. This effort creates an opportunity for the Air Force to apply performance and cost accountability to defense industrial firms through their chief financial officers and board of directors by linking executive compensation to contract performance.

In addition to the major process changes for DOD space, the Air Force's Business Transformation Task Force directs and integrates further process improvement and adaptation. Core business and operations support processes—such as acquisition, logistics, maintenance, training, medical and dental, among others—are crucial, as

they ultimately determine our overall enterprise effectiveness and directly sustain combat capabilities. An additional category of processes called "enablers" completes the Air Force enterprise. Examples of "enablers" include management of human resources, finances, contracts, property plant and equipment, and information. The enablers are important as they facilitate our core capabilities and determine the overall efficiency of our enterprise.

The Air Force will enact business transformation from an integrated enterprise perspective, examining every process and associated link. Accordingly, we will employ industry best practices and identify management metrics to improve process efficiency without degrading our enterprise effectiveness, expand our customer's self-service management capability and free up needed resources for the operational communities, and provide real-time, accurate financial data for better decision-making. Already, acquisition reform has effected notable improvements, including:

(1) Streamlined our acquisition and contracting regulations, replacing lengthy prescriptive sets of rules with brief documents that emphasize speed, innovation, sensible risk management, and elimination of time-consuming process steps that have little value. As previously mentioned, our new National Security Space acquisition process is an example of progress in this area.

(2) Created a Program Executive Office for Services to bring new efficiency to the growing area of services contracts. This key area, which accounts for nearly half of our procurement budget, had no prior centralized coordination and oversight.

(3) Developed and initiated System Metric and Reporting Tool (SMART), putting real-time program status information on everyone's desktop. This web-based application pulls data from dozens of legacy reporting systems to give everyone from program managers up to senior leadership direct visibility into the "health" of hundreds of acquisition and modernization programs. When fully deployed in fiscal year 2003, it will automate the tedious and laborious process of creating Monthly Acquisition Reports and possibly Defense Acquisition Executive Summary reporting to OSD.

(4) Empowered "high powered teams" of requirements and acquisition professionals to create spiral development plans to deliver initial capability to warfighters more quickly, and add capability increments in future spirals.

(5) Designed a Reformed Supply Support Program to improve the spares acquisition process by integrating the support contractor into the government supply system. Contractors now have the same capability as government inventory control points to manage parts, respond to base level requisitions, track spares levels, and monitor asset movement.

(6) Continued, with OSD support, expansion of the Reduction in Total Ownership Cost (R–TOC) program, to identify critical cost drivers, fund investments to address them, and generate cost savings and cost avoidance. We also created standard processes and a business case analysis model to use for initiatives within R–TOC. In fiscal year 2003, OSD allocated $24.9 million no-offset investments to R–TOC that will return $53.2 million through fiscal year 2008. A planned $37.1 million investment across the FYDP will save a projected $331 million in operations and maintenance through fiscal year 2009.

These initiatives are only the beginning of a comprehensive and aggressive approach to reforming business practices. Our efforts today will have a direct effect on efficient and effective air and space capability acquisition, both immediately and in the future.

Ensuring Readiness

Integrating systems and expanding business practices will not only have dramatic effects on air and space capabilities, but also reduce readiness challenges. However, we still face daunting, but surmountable, obstacles. We must overcome a multitude of installations and logistical issues to secure flexible and timely execution of expeditionary requirements for joint warfighting.

Reconstituting and reconfiguring our expeditionary basing systems and wartime stocks is a critical element of our force projection planning. While we made significant strides in funding, we require additional investments in bare base systems, vehicles, spares, munitions, and prepositioning assets. Our infrastructure investment strategy focuses on three simultaneous steps. First, we must dispose of excess facilities. Second, we must fully sustain our facilities and systems so they remain combat effective throughout their expected life. Third, we must establish a steady investment program to restore and modernize our facilities and systems, while advancing our ability to protect our people and resources from the growing threat of terrorism at current, planned, and future operating locations—at home or abroad.

We are making progress. Improved vehicle fleet funding allowed us to replace some aging vehicles with more reliable assets, including alternative fuel versions to help meet Federal fuel reduction mandates. Targeted efficiencies in spares manage-

ment and new fuels mobility support equipment will improve supply readiness. In addition, our spares campaign restructured Readiness Spares Packages and repositioned assets to contingency sites. Moreover, to increase munitions readiness, we expanded our Afloat Prepositioning Fleet capabilities, and continue acquiring a broad mix of effects-based munitions in line with the requirements of all TF CONOPs.

Finally, our "Depot Maintenance Strategy and Master Plan" calls for major transformation in financial and infrastructure capitalization to ensure Air Force hardware is safe and ready to operate across the threat spectrum. To support this plan, we increased funding in fiscal year 2004 for depot facilities and equipment modernization. We also began a significant push to require weapon systems managers to establish their product support and depot maintenance programs early in the acquisition cycle and to plan and program the necessary investment dollars required for capacity and capability. Additionally, we are partnering with private industry to adopt technologies to meet capability requirements. The results from these efforts will be enhanced, more agile warfighter support through the critical enabler of infrastructure.

Expanding AEF Personnel

The attacks of September 11 significantly increased workload and stress in a number of mission areas for our expeditionary forces. Manning for these operations is drawn from our existing AEF packages. In order to accommodate increased contingency requirements, we are exploring options to augment the existing AF construct. Recent and ongoing efforts to maximize the identification of deployable forces and align them with AEF cycle, assisted in meeting immediate critical warfighting requirements. However, some career fields remain seriously stressed by the war on terrorism. Accordingly, our efforts focus on changing processes that drive requirements not tuned to our AEF rhythm. We developed formulas to measure, and gathered quantitative data to evaluate, the relative stress amongst career fields to redirect resources to the most critical areas. We also began a critical review of blue-suit utilization, to ensure uniform airmen are used only where absolutely necessary, and maximize the use of the civilian and contract workforce for best service contribution and military essentiality.

We are refocusing uniformed manpower allocation on our distinctive capabilities to reduce the stress on our active force. Additionally, we are carefully considering technologies to relieve the increased workload. These efforts exist within our longer-term work to reengineer, transform, and streamline Air Force operations and organizations, and have allowed us already to realign some new recruits into our most stressed career fields.

Summary

As the two mediums with the most undeveloped potential, air and space represent the largest growth areas for national security and the greatest frontiers for joint warfighting. As such, air and space operations will play an ever-increasing role in the security of America and her allies. The Air Force will exploit technology, innovative concepts of operations, organizational change, and our ability to embrace creative ideas and new ways of thinking. We will bring to bear the full suite of air and space capabilities for tomorrow's Joint Force Commander—drawing from every resource, integrating closely with all Services, and overcoming any obstacle to succeed.

NEXT HORIZON

The events of the last year have emphasized the dynamics of a new international security era. The decade of new states following the Cold War has been followed by the rise of non-state actors, many following a path of aggression and destruction. Yet, just as America adapted to new global dynamics in the past, we will again confront emerging challenges with confidence and faith in our ability to meet the demands of assuring freedom.

The Air Force remains dedicated to drawing on its innovation, ingenuity, and resolve to develop far-reaching capabilities. The ability to deliver effects across the spectrum of national security requirements is the cornerstone of the vision and strategy of Air Force planning and programming. In conjunction, and increasingly in integration with ground, naval, marine, and other national agency systems, the Air Force will play a central role in elevating joint operations. We recognize the greatest potential for dominant American military capabilities lies in the integration of our air and space systems with those of other services and agencies, and our success in this objective will be evident in every mission to deter, dissuade, or decisively defeat any adversary.

Chairman WARNER. Thank you, General.

Those were excellent statements. Now we will proceed to questions. Let us start off with the question of the readiness of our troops. It seems to me there are two areas of readiness. The overall readiness I think you have addressed, but three of us on this committee who went overseas observed the readiness of those forward-deployed troops in Pakistan, Afghanistan, and the Gulf region.

There were areas which concerned us, like the Joint Special Operations Center (JSOC), Special Operations SEAL teams, and things like that. Some of those individuals have been on a rotation cycle to where they were back again many times. I wonder if you all could just touch on that readiness situation. Since you brought fortunately the sergeant, why do we not start with the Air Force on that question.

Are you concerned about the ability to maintain that OPTEMPO of those critical skills I mentioned as well as others?

General JUMPER. Yes, sir. Secretary Rumsfeld and I are concerned. Secretary Rumsfeld has rightfully asked us to go forward and to make sure that everything that we are doing with our people in uniform are things that need to be done by people in uniform, and to take those things that do not need to be done by people in uniform and shift those slots back over to uniformed slots so that we can relieve the tension on our deployed forces.

In the Air Force alone, we found 12,000 people doing what we think does not have to be done by people in uniform. That would go a long way to relieving some of the pressure that we feel on those slots. So it is not just a matter of adding end strength. It is a matter of making efficiencies out of what you have and making sure you police up the battlefield, sir, and go out and find where bodies have migrated off to and make sure they get them back to military business. That is part of the solution that we are working on.

Chairman WARNER. My question was more narrowly directed to those members of the Air Force who are participating on combat teams in those regions right now.

General JUMPER. Yes, sir. Especially in the Special Operations Forces, they have not been sized for long-term sustained operations.

Chairman WARNER. Do you see a window which is a matter of constraint?

General JUMPER. Not a particular window, Mr. Chairman. I do see a need to bolster up, especially in our combat search and rescue forces, which is the Air Force portion of this, and our combat controllers, of which Sergeant Yoshida is a part. We need to take a look at bolstering up those career fields to be able to sustain, especially in this war against terrorism, and that kind of activity.

Chairman WARNER. General Shinseki, we will shift to you because you have the majority of those people.

General SHINSEKI. I do, Mr. Chairman. They are stressed and we are using them on multiple missions that a few years ago were not anticipated. The first step has been for Special Operations Command, and then my Army commander who is part of that, to look hard at the missions they are performing today. The ones that can be returned to conventional forces, we are taking that under our

decisions now, so that we husband our Special Operating Forces for the key missions that they need to focus on.

Many more missions today than back in 1996, 1997, when we saw these requirements expanding. Another thing, the Secretary of Defense has asked the commander of Special Operations Command to look at his capabilities and see what additional requirements he might have. That analysis has been provided and is being staffed.

In advance of that, the Army has in next year's budget already added something of the order of 1,800 or 1,900 additional Special Operations authorizations and about a billion dollars to give Special Operations Command added capabilities.

Chairman WARNER. Do you see any constraints on the time in those regions that we visited, the ability to maintain that high OPTEMPO of those particular skills, say in the next 60 to 90 days?

General SHINSEKI. There is stress today and, as I say, the decision to pull some of our very best special operators off missions that they can be relieved of will give us a bigger inventory to deal with that rotation cycle.

Chairman WARNER. Admiral Clark.

Admiral CLARK. Mr. Chairman, it is well documented, and I talked about the number of ships that I had deployed, 51 percent of my great Navy. I talked about 170 additional ships. That is the Military Sealift Command. That is pressed forward. A lot of those are civilian manned.

But I look back over the course of time since September 11 and the start of this process, we have had 9 of our 12 carrier battle groups deployed. We are watching the tempo very carefully. I feel good about our readiness. But that does not mean that there are not areas where you have real challenges, and the Special Forces teams are one of those areas that you have identified.

So today I have six carriers over there. Am I concerned over the next 60 to 90 days? No, I am very confident. But you will recall that the previous two times I have come before you I have said that at the top of my list was the current readiness challenge, and we have invested significantly in that. There are always areas where there will be pockets that we have to manage and watch carefully, and we are doing it.

Chairman WARNER. General Hagee.

General HAGEE. Sir, as I mentioned in my opening statement, we have 63 percent of the Marine Corps forward deployed. I would associate myself with what the Chief of Naval Operations said. For the near term, we can maintain that. We will continue to watch that to see if we need to do any rotation.

We do not have any Special Operating Forces per se, but we are working with Special Operations Command to see if there are some of the capabilities that we have currently in theater that can help relieve some of their pressure.

Chairman WARNER. Gentlemen, as we visited with the troops there is no question about their having been well trained and their commitment and their morale is high. But there is not a one of us that did not look into their faces and share with them the thoughts that they shared with us about, if force is required to remove Saddam Hussein and to dismantle the weapons of mass destruction,

we could be confronted with in the early stages of that combat weapons of mass destruction inflicted upon our own forces.

I think each of you this morning should touch on the training and your level of confidence in that training and our ability of the troops to carry out their missions. General Shinseki, we will start with you.

General SHINSEKI. This is the toughest part of our training requirement. It is the part of the operation that has the greatest risk and also the greatest constraints on physical performance applied to it. Being inside of our overgarments, masks, and gloves we restrict our senses, and it is the part that deserves a considerable amount of training effort.

That training does go on, whether it is at home station in the middle of winter at Fort Stewart, Georgia, or out at the National Training Center in California in August. You can expect in your training cycle to be put into full mission oriented protective posture (MOPP–4) protective environment and be required to operate.

So in terms of discipline, in terms of stamina, in terms of the confidence that our equipment is functional at the individual level, all of that is there. I think our commanders have good visibility along with the responsibility to make sure that that piece of their training is addressed in concert with all the other training they have to go and get accomplished to maintain the highest readiness standards.

But training in our nuclear/biological/chemical (NBC) equipment is part of that, individually and as well as units. Units that operate in that environment, if they're contaminated, can be expected to operate for an extended period in the environment. Units that have an opportunity to decontaminate their own equipment and themselves individually rehearse this as part of their responsibilities.

The training level is there. I say again, this is the toughest part of our operation, but the requirement to meet the training standard is there and commanders execute this.

Chairman WARNER. But in your personal judgment, do you have a high degree of confidence in their ability to endure and carry out the mission?

General SHINSEKI. I do.

Chairman WARNER. Admiral.

Admiral CLARK. I second that completely. My conviction is that we have made great investments in the current readiness part of our budget. In previous testimony before this committee, I have talked about that as a priority issue. I will tell you that my manning is better in my battle group and amphibious forces than it has ever been since I have been in the Navy. It is that way because we have invested in it. We have invested in the training cycle and are constantly improving it so that we know we have it right.

Now, does that mean that there is no reason for concern? Of course that would be a foolish thing to say when you talk about potential conflict. But Mr. Chairman, I am very confident in the readiness of our force.

Chairman WARNER. The ability to cope with that contingency?

Admiral CLARK. Yes, sir.

Chairman WARNER. Thank you.

General.

General HAGEE. Senator, I am absolutely confident in our ability to operate in that environment. As the chairman knows, just a few months ago I was in command of the unit that is over in Kuwait right now. In the 2 years I was in command, there was nothing more important than the NBC readiness. To give you some statistics, we have enough Saratoga suits to give three to each individual. We have filters for the gas masks, enough for three for each individual. We have 14 so-called Fox vehicles. These are specially equipped vehicles to detect chemicals in the atmosphere or in the ground. We have seven biological detection units from the Army with the marines that are there, specifically put together to detect biological agents.

Right now, 94 percent of our marines have had their smallpox vaccination. If you include the ones that we exempted, they are at 99 percent. We have 85 percent of the marines who have had three or more anthrax vaccinations. If you look at the ones that have had one or more, we are in the low 90 percent.

Sir, we are ready and we can operate in that environment.

Chairman WARNER. Thank you, General.

General Jumper.

General JUMPER. Mr. Chairman, we train, as the other Services do, every day in this environment. I have every confidence that we can sustain operations in this environment. We are under way fully with our anthrax and smallpox vaccination program. We have the detectors around the perimeters of our air bases and we practice in this environment as part of our normal readiness training. Sir, we are ready.

Chairman WARNER. Thank you very much.

[Whereupon, at 10:28 a.m., the hearing was recessed, the committee proceeded to other business, and the hearing was reconvened at 10:29 a.m.]

Chairman WARNER. Senator Levin.

Senator LEVIN. Thank you very much.

General Shinseki, could you give us some idea as to the Army's force requirement for an occupation of Iraq following a successful completion of the war?

General SHINSEKI. In specific numbers, I would have to rely on combatant commanders' exact requirements.

Senator LEVIN. How about a range?

General SHINSEKI. I would say that what has been mobilized to this point, something on the order of several hundred thousand soldiers, is probably a figure that would be required. We are talking about post-hostilities control over a piece of geography that is fairly significant with the ethnic tensions that could lead to other problems. It takes a significant ground force presence to maintain a safe and secure environment to make sure that people are fed, that water is distributed—all the normal responsibilities that go along with administering a situation like this.

Senator LEVIN. What effect would that type of an occupation to that extent have on two things: one is our OPTEMPO, which you have talked about, already stressed; two is the ability of the Army to fulfill the other missions that we have?

General SHINSEKI. Well, if it were an extended requirement for presence of U.S.-only Army forces, it would have significant long-

term effect and, therefore, the assistance from friends and allies would be helpful.

Senator LEVIN. Some of the service personnel with whom we chatted on our trip indicated a belief that there may be some equipment that they needed but did not have, equipment which might be, they thought was, in the hands of non-deployed units. I'm just wondering whether any of you are aware of any such equipment and whether you would just double-check it. We were given one example particularly, something called a Laser Viper. But are any of you aware of that situation, where we have the most advanced equipment not in the hands of the deployed forces, but in the hands of nondeployed forces?

General SHINSEKI. I am not aware of any specifics, but I would not doubt that there is possibly an opportunity to discover something.

Senator LEVIN. If you would just all check that issue out, because that is obviously something relevant.

General SHINSEKI. I will find that information, sir.

[The information referred to follows:]

I am not aware of any specific instance of the above situation in today's deployed forces. Given the cycle in which Navy ships and aircraft deploy (known as the Inter-Deployment Training Cycle (IDTC)), and the program manager methodology utilized by NAVSEA, NAVAIR, and SPAWAR to introduce new technology into the operating fleet, the most modern equipment approved for in-service use would have been installed during the unit's last extended maintenance availability prior to the commencement of training operations.

However, the situation of the "most advanced equipment, not (being) in the hands of the deployed forces" is indeed possible, given that, (a) many ships are currently deployed outside of their scheduled deployment in support of overseas operations and hence may have missed some equipment modernization opportunities and, (b) the ease of installation and ready availability of commercial off-the-shelf (COTS) equipment allows for these systems to be directly procured and installed by non-deployed ships crews, outside of the above IDTC and program management scenarios (in the past, this has typically been in the areas of shipboard navigation aids, computer peripherals, and similar technology).

Senator LEVIN. On the end strength issue, last year our Services indicated they needed additional end strength. Only the Marines have received additional end strength in this budget request. Admiral Clark, your number one unfunded priority was for 4,400 additional active duty personnel. That was unfunded last year. Your budget proposal for this year has an end strength reduction of 1,900 active duty personnel, along with a reduction of 2,000 Reserve component personnel. The Navy is busier than it was last year. How do you square that?

Admiral CLARK. Well, I square it like this. My proposal also reduces the total number of ships that we will have in the Navy as we seek to move toward a modernized and redesigned Navy. My recommendation to the Secretary and him to the President was that there were ships that we needed to decommission and move on, and that is why the numbers are smaller.

I will say this, Congress has given us authority to be in an over-end strength posture. So in terms of the number of people, I have shortfalls in the existing execution year in people.

One of the reasons is that we have had the success that we are realizing tremendous success in the battle for people. Young people

today want to serve, but I do have shortfalls there that need to be addressed with supplemental appropriations.

Senator LEVIN. General Jumper, your predecessor said the Air Force needed an increase in end strength of 10,000 airmen. The pace of operations has picked up considerably since then and yet the Air Force did not get an increase in authorized end strength last year and it did not, apparently, ask for an increase this year.

Do you have the personnel you need and how do you square those facts?

General JUMPER. Sir, we are in fact stressed, as I stated before. One of the things the Secretary of Defense has asked us to do, and we are doing, is finding those airmen out there that are not doing things that uniformed people need to be doing and to police those up and move those slots into slots that do require uniformed people.

We have another issue in that we have previous year commitments of almost 4,500 slots that were taken as a result of privatization actions that were actually not taken off the books. We are having to reduce those as well as part of this budget activity.

So we continue to look for these efficiencies. We will continue to apply them where we can. If they do not do the job, I will be the first to go back to the Secretary of Defense and ask for the relief that we need to get that job done.

Senator LEVIN. Thank you.

I would ask all of you this. I have a copy of the draft legislative proposal which has been circulating inside the Department of Defense. Under that draft, the Joint Staff would report to the Secretary instead of to the Chairman. The Secretary would have to approve all appointments to the Joint Staff. The draft amendment would strike the statutory requirement that the Joint Staff be "independently organized and operated." We also have a copy of a memorandum signed by David Chu requesting a legislative proposal that would reduce the terms served by the service chiefs from 4 years to 2-year renewable terms.

[The information referred to follows:]

1 SEC XXX. Consolidation of the Office of the Secretary of Defense, the Joint Chiefs
2 of Staff, and the Joint Staff
3 (a) IN GENERAL.— Section 155 of title 10, United States Code, as amended by —
4 (1) Striking the second sentence of paragraph (a)(1) and inserting:
5 "The Joint Staff assists the Secretary of Defense, the Chairman and the other
6 members of the Joint Chiefs of Staff in carrying out their responsibilities.";
7 (2) In paragraph (a)(2) by inserting after the phrase "by the Chairman" the Phrase
8 "with the approval of the Secretary of Defense,";
9 (3) In subsection (c) by amending the second sentence to read:
10 "With the approval of the Secretary of Defense, the Joint Staff shall perform such
11 duties as the Chairman prescribes and shall perform such duties under such procedures as
12 the Chairman prescribes."; and
13 (4) In subsection (d) striking "independently"; and
14 (b) CONFORMING AMENDMENTS.—
15 (1) The first sentence of subsection 131(c) of such title 10 is amended by inserting
16 ", including officers assigned or detailed to the Joint Staff pursuant to section 155 of this
17 title," after "Officers of the armed forces".
18 (2) Section 143 of such title 10 is repealed.

Section by Section Analysis

This proposal would allow the Secretary of Defense to consolidate staff resources within the Office of the Secretary of Defense and the Joint Staff that perform like functions, in the non operational warfighting staff functional areas, to create a more efficient and effective team supporting the Secretary and the Chairman of the Joint Chiefs of Staff. While the staffs of both the Office of the Secretary and the Joint Staff consist of the highest quality of dedicated and professional civilian and military personnel, currently there are significant differences in organizational culture, procedures, objectives and career incentives that make it difficult for the two organizations to interact effectively.

UNDER SECRETARY OF DEFENSE
4000 DEFENSE PENTAGON
WASHINGTON, D.C. 20301-4000

JUL 16 2002

PERSONNEL AND READINESS

MEMORANDUM FOR SECRETARY OF THE ARMY
SECRETARY OF THE NAVY
SECRETARY OF THE AIR FORCE
DIRECTOR OF THE JOINT STAFF

SUBJECT: Reducing PCS Moves and Lengthening Tours and Tenure

The Secretary has observed that the Department's management of human capital often generates a series of short – and sometimes superficial – career exposures. As a consequence, leaders may be denied the opportunity to achieve appropriate depth of experience, and organizations are denied the type of stability required for effective military performance. Such policies often drive experienced people to leave the military too often and too early.

To address these concerns, I have instructed the Assistant Secretary of Defense (Force Management Policy) to immediately develop the following initiatives, in close coordination with the Military Departments and the Joint Staff:

- Develop legislative and policy changes for enactment in FY 2004 that would place Service Chiefs and Combatant Commanders under the same tenure and continuation cycle as the Chairman (i.e., two-year "renewable" cycle for a maximum of six years continuous service).

- Submit a report to the Secretary by October 2002, evaluating the merit of a policy whereby general/flag officer deputy or vice commanders would be selected on the basis of planned succession to the position of their principal, in those cases wherein tour lengths must operate at fewer than three years.

- Work closely with the Military Departments to identify a Service – or Services – to implement a two-year pilot program, beginning in FY 2004, putting in place an "up-or-stay" promotion process for certain high-investment specialties such as pilots or scientific-technical specialties. This review will explore reforms needed to posture for the sustainment of mission success and excellence, including:

  - Selective continuation screening at the 10th, 15th, and 20th years.

  - Compensation/benefits for members not selectively continued at the 10-and 15-year point; and

- Advancement to the next higher grade upon retirement at the 20th or later year of service.

- In close coordination with the Military Departments, develop alternatives for evaluation as part of the FY 2005-09 DoD Program Review which would gradually move officer intermediate and senior service schools from one-year resident to shorter periods of residency, through employment of distance learning and regionally-accomplished weekend seminars, with a goal of achieving three months of TDY resident education (not necessarily sequentially) no later than FY 2009. Development of this issue shall consider incentives to reward those who are selected for and complete the program, such as a choice of special leave or cash, to offset associated sacrifices and to recognize merit. The evaluation will also consider re-stationing plans at the affected sites to mitigate community or political resistance that could emerge from precipitous drops in real estate markets.

In the course of these efforts, I have asked the ASD (FMP) to consider appropriate changes to compensation systems that could encourage people to stay longer in the service, and at their assignments, recognizing that costs of improved retention may be more cost-effective than contemporary stability and career patterns.

These actions, while a subset of what is envisioned as a larger transformation to longer careers and greater periods of incumbency, will get us moving in the direction Secretary Rumsfeld has encouraged. Your cooperation and support will be instrumental to the development of sound alternatives, and I will keep you abreast of progress.

David S. C. Chu

cc:
Deputy Chief of Staff for Personnel (G1), Army
Deputy Chief of Naval Operations (Manpower & Personnel)
Deputy Commandant for Manpower & Reserve Affairs, U.S. Marine Corps
Deputy Chief of Staff for Personnel, Air Force

I think these proposals, taken together or separately, would undermine the ability of the uniformed military to provide independent military advice to the civilian leadership, to the executive branch, and to Congress. That is my view.

More importantly, would you tell us quickly whether you support those proposals, General Shinseki?

General SHINSEKI. Senator Levin, I have not seen the exact language here, but I have heard that there have been discussions. This is a chief at the end of a 4-year service and I think that the 4-year term, at least for me, has been helpful in continuity. I am looking at the fact that, 4 years here, I am about to field the first Stryker Brigade. At the end of 4 years here, the Army is about to have its first major acquisition milestone decision in May of this year for the Future Combat System. It has taken considerable effort, 4 years, to put these programs together.

I think it is helpful to have a long-term perspective. I know there are others who have responsibility in this area, whether it is here in Congress or over in Defense, combatant commanders and service chiefs. All of us have responsibilities. But for a service chief a longer term perspective is helpful.

I think that some of the early inertia that the Army had to overcome in order to get its transformation legs moving and develop some momentum would have been different had it been just a 2-year term of service. I believe that the Joint Staff as it exists today serves both the Chairman and the Joint Chiefs. I look to them as part of keeping my role as a member of the Joint Chiefs, keeping me abreast of those issues. I look for them to continue to do that.

Senator LEVIN. To maintain that independence?

General SHINSEKI. That is correct, for the Joint Chiefs.

Senator LEVIN. Do you want to give us quick answers? My time is up. Do you agree with these proposals?

Admiral CLARK. First of all, I had not heard of the first part of your proposal. This is the first I have heard of it.

Senator LEVIN. What was the first you heard of?

Admiral CLARK. The proposal for the Joint Staff, the chain of command and the way you lashed it up; I had not heard that.

Senator LEVIN. Okay. We will send you all a copy, by the way. We would not want you to be in the dark about what is floating around the Pentagon.

Admiral CLARK. My sense is that I serve at the pleasure of the President, and it seems to me that the experience you glean in 2-year assignments is not the best way to go. Again, I am not sure the status of that proposal and I have not been asked to comment on it.

I know that there is a tenure issue here, and how long it takes and the nature of your contribution. For me, it is a pleasure to serve in a position like this, and if the President makes a judgment that there are going to be 2-year tours instead of 4-year tours, obviously that is the way we are going to go.

The experience related to it is, I find myself now at a point where there is a great learning curve in these assignments. I would also say that 4 years that we currently have is a considerable period to serve. What I believe is required is that we need a construct that serves the President and serves the Service and provides for independent assessment by the Chiefs.

Senator LEVIN. General?

General HAGEE. Sir, I had not seen the proposal either and, in the interest of time, I would agree with Admiral Clark.

General JUMPER. Sir, we have not been briefed on the details of such a proposal nor have we had a chance to discuss this with the Secretary of Defense. I will say that I would think the Secretary would want his service chiefs in position long enough to be able to make a difference and to establish a rapport with one another, to be able to deal with the joint issues that we deal with every day.

Senator LEVIN. Thank you.

Thank you, Mr. Chairman. Thank you.

Chairman WARNER. Senator Inhofe.

Senator INHOFE. Thank you, Mr. Chairman.

I will address this first question to you, General Shinseki, because Admiral Clark and General Jumper have already responded to the end strength question that Senator Levin had posed.

Since the early 1990s, the Army has been cut by more than 34 percent and undergoing a 300-percent increase in mission rates. The average frequency of Army contingency deployments has in-

creased from 1 every 4 years to 1 every 14 weeks. During the same period of time, the Army lost a third of its force structure, 21 percent of its infrastructure and 37 percent of its budget authority.

Now, all of this is before September 11 and then the potential problems that we are gearing up for right now. To put it in perspective, in fiscal year 1989, the Operation Desert Storm-size deployment of 261,000 active troops would require 53 percent of the Army's deployable end strength and only a sixth of its forward-staging troops. Today that same deployment would require 86 percent of deployable end strength.

Now, that gets into the problem that we are having, of course, with our Reserve component. They are doing a great job, but we all know that we are having problems with certain critical MOSs and there is not a person at this table up here that does not have a lot of deployments in his or her State. I know you all answer the question, yes, we are ready and all that, but how long can you sustain this? Then specifically on end strength, General Shinseki, where are you? What are your feelings?

General SHINSEKI. Senator, I think the last 3 years that I have appeared before this committee, I have indicated that the mission profile that the Army has been asked to address is bigger than the size of the active component formations that we had and that end strength was an issue.

But if you recall 3 years ago, recruiting was a challenge and we had to go take care of that. In the last 3 years, recruiting and retention is no longer the issue. So we are able to fill our ranks. Prior to this mobilization expansion for a potential Southwest Asia scenario, I think you would have found something on the order of 25,000 to 30,000 Reserve component soldiers mobilized each and every day routinely for the Sinai, Bosnia, and Kosovo. I think this is an indication that our reliance on the Reserves. Their response has been fantastic, but the fact that we are relying on them so heavily for those routine day-to-day missions suggests that there is an end strength issue here.

Those numbers are constantly reviewed. We have made the case that end strength is an issue for the Army, and we will continue to do that.

Senator INHOFE. Thank you, General.

Now, for all of you, I want to first thank you because you have each had someone come into my office. We have had briefings on this next issue that concern me. It concerns me, not just because it has been of concern to this committee for a long time, but I also chair the Environment and Public Works Committee.

That is, environmental encroachment. We have had briefings from each one of the four Services. General Hagee, we know what is happening out at Camp Pendleton. We know that we will be able to use about 30 percent of the land area there. General Shinseki, we have the same problem at Fort Bragg and other places. Of course, we know what has happened by losing the Vieques Range. That puts more burdens on the ranges that we have here in CONUS.

So I would like to have each one of you just very briefly talk about how serious of a problem this is. Then for the record, I would like to have you inform this committee as to the monetary costs,

as near as you can determine them, of complying with these environmental regulations.

[The information referred to follows:]

ENVIRONMENTAL ENCROACHMENT

General SHINSEKI. Encroachment on training and testing ranges is a significant issue for the Army. Our soldiers must train as they intend to fight because they will surely fight as they have been trained. Environmentally based restrictions on training add artificiality into training. Compliance with environmental laws can also restrict access to land needed for maneuver and live-fire and restrict the available times and durations of training activities.

The Army has spent more than $74 million over the past 5 years for compliance with the Endangered Species Act. Given the significantly increasing requirements brought about by pending critical habitat designations, we anticipate significant increases in cost both to maintain compliance and find training alternatives.

In addition, there are indirect costs associated with deploying units to alternative training sites when their home station does not support all necessary training requirements. For example, the 25th Infantry Division (Light) in Hawaii cannot conduct all of the 18 required combined arms live-fire exercises at their home station range, Makua Military Range, due to a NEPA-based lawsuit settlement. Rather, they must conduct a number of these exercises while deployed to the continental U.S. or overseas. In addition, other units in Hawaii (National Guard and Marines) that would also train at Makua are unable to do so and must deploy or develop alternatives (suboptimal training methods) for their displaced live-fire training.

At Fort Richardson, Alaska, the Army is currently engaged in a lawsuit where the plaintiffs allege that live-fire training violates the Resource Conservation and Recovery Act (RCRA) and the Comprehensive Environmental Response Compensation and Liability Act (CERCLA). They are seeking to shut down training at the Eagle River Flats (ERF) range. The RCRA allegation argues that munitions fired into or onto ERF fall within the definition of RCRA statutory solid waste. If munitions used for their intended purpose are considered to be statutory solid waste, the Army could be forced to perform corrective action or remediation of ERF. Live-fire training during the remediation would be impossible and the only mortar and artillery impact area at Fort Richardson would be lost for training. The CERCLA allegations are that the act of firing munitions onto an operational range constitutes a release of hazardous substances requiring reporting, characterization, and remediation. If the court agrees with the plaintiff, then live-fire training and testing operation at every Army range could be subject to CERCLA response requirements. These findings would not only dramatically impact the readiness of the 172nd Infantry Brigade in Alaska, the largest infantry brigade in the Army, but the entire Department of Defense (DOD).

Further lawsuits could compel the Environmental Protection Agency and State regulators in all U.S. regions to enforce the same standards on other military ranges. Live-fire training would be severely constrained and military readiness would decrease dramatically. The requirement to conduct RCRA corrective action or CERCLA response actions on operational ranges would constitute a huge financial burden. The Army estimates that the cost to conduct RCRA or CERCLA-type clean up on Army operational ranges would range from $14 billion to $140 billion. This does not include money that would be required to move displaced training to another location during the cleanup. Moreover, if these standards are applied across the DOD, it is unlikely that alternative live-fire training sites would even be available.

Admiral CLARK. While the fiscal year 2003 Department of the Navy (DON) environmental compliance budget is approximately $1 billion, no specific lines are tied directly or exclusively to encroachment mitigation. DON budgets the funding required to comply with existing environmental laws applicable to installations, ships, and aircraft. These laws and regulations in turn have encroachment impacts if they alter training time or space available while we maintain the property the taxpayers have entrusted in us.

The effects of encroachment go beyond the environmental programs due to the fact that when encroachment occurs there are potential costs associated with delays, cancellations, modifications, and movement of training to different locations. Operational costs may increase in the form of more steaming days and/or flying hours required to complete an exercise, and personnel costs may rise from paying travel per diem over a longer time period.

The final cost has no fiscal figure but carries the most weight and burden of encroachment on our troops. Should an exercise move to an alternate location because of encroachment concerns, it means the sailor could incur a longer time away from home due to transit time to the training site. During this higher state of operational tempo as we prosecute the global war on terror, all possible options are used to ensure the sailor maximum time with family while home. It is also why Navy strives to accomplish most unit level training near the home base, but unfortunately there are times when this goal cannot be achieved due to encroachment.

General HAGEE. For fiscal year 2004, the Marine Corps has budgeted the following to meet environmental compliance, pollution prevention, and conservation requirements:

	[In thousands of dollars]
Operations and Maintenance, Marine Corps	121,975
Military Construction	31,200
Operations and Maintenance, Marine Corps Reserve	9,245
Defense Working Capital Fund	2,966

General Jumper did not respond in time for printing. When received, answer will be retained in committee files.

General SHINSEKI. I would tell you the Army must train. Otherwise, our presence on a piece of ground is not useful to us. So we have made the importance of meeting our training requirements a high priority, and where we have forces located we have had to work with folks responsible for the environment and find ways to continue to train. I think we have done that by demonstrating we are good stewards.

But this is an issue that we continue to work, whether it is in the National Training Center where you have the Desert Tortoise or Fort Bragg, Fort Polk, Fort Benning, where the Red-Cockaded Woodpecker exists.

Senator INHOFE. General, I know you have been good stewards, all of you have, and that is the problem. You are such good stewards, you are getting more and more of the critters coming in and more and more of the problems. For example, look at Fort Bragg. Camp Lejeune is a good example, General Hagee, where I have been down there at 2-year intervals and I see more and more of these areas where they are not able to train.

So I am concerned about this, and again for the sake of time I will just go ahead and ask you for the record if you would submit that.

General Shinseki, one other question for you is. First of all, I thank you for all the effort that you made in coming up with an NLOS cannon compromise that gets into our Future Combat System. I think it is good. I would ask you, does the budget adequately fund that program to meet the congressionally-mandated time line, that is fielding this by 2008?

General SHINSEKI. It does, Senator.

Senator INHOFE. Okay, good.

General Jumper, I know one of the big controversial things in the costs would be, what are you going to use for tankers? There are several proposals out there. The KC–135 Es and Rs—I think now four-fifths of them are converted to Romeos—but also the proposal for the leasing of 100 767s, which I think people have to understand is the first step. If that were to happen, I would assume we would end up with 400 or 500 of these things.

My concern is this. You are going to have to come to this committee for ratification of that lease agreement, is that correct?

General JUMPER. That is correct.

Senator INHOFE. When you do come to this committee for ratification, will you come in with an established training, basing, and maintenance plan for that equipment?

General JUMPER. Sir, the plan that we have for training is not established yet. What the initial plan would be, to start off, as we did with the C–17, and that would be that as a few airplanes become available then that training would probably be done on a contract.

As you reach a certain level of aircraft—in the C–17 example it was 20 aircraft—then you make a decision on centralizing the training. So at that time, we would come forward with a plan on how and when that would be done sir.

Senator INHOFE. Yes, I remember the C–17. We went through that for a number of years.

General JUMPER. Yes, sir.

Senator INHOFE. It is a successful program. However, it is a little bit different than this because you are talking about a leasing operation where you are going to have these conversions and then a major training effort. I would just say this: if you are not in a position to come before this committee with the training and the basing and maintenance, I am probably going to oppose the lease altogether, because there are some alternatives out there and I think we really need to see how this overall program is going to work before we get into something as far-reaching as this program you are contemplating right now.

General JUMPER. I understand, Senator.

Senator INHOFE. My time has expired. Thank you, Mr. Chairman.

Chairman WARNER. Thank you very much.

Senator Reed.

Senator REED. Thank you very much, Mr. Chairman.

First let me begin by thanking and commending General Shinseki for his great service to the Army and the Nation, and also Patty Shinseki, who has served with equal distinction at least. Thank you.

There is a recurrent theme in today's questioning about manpower and end strength and I think that emanates from the common sense view that it is very difficult to interject military forces into a region and it is sometimes more difficult to get them out. So I think we all are anticipating not only successful military operations, but long-term operations.

I know you have responded, but could you particularly respond to the issue of Reserve and National Guard, because what I have seen, as Senator Inhofe has suggested, in my home State we have mobilized practically all the Guard and Reserve Forces we have for 1 year. A more specific question is, what do we have to do now to ensure that we do not run into a wall a year from now and there are not any willing able National Guard, Reserves, to fulfil critical missions, many of which might be particularly germane to the Reserves and the Guards since civil affairs, distribution of water, distribution of food, as General Shinseki suggested there is a lot more of those qualified individuals in the Reserves than the Active Forces.

Could you comment, and I will ask all of you gentlemen to do so.

General SHINSEKI. Certainly, Senator. I think this is part of that larger discussion about right-sizing the force, the end strength issue that I addressed earlier. Then once that issue is addressed, then it is the appropriate mix between active and Reserve components.

Day to day, we should be able to handle that out of the available inventory of our active component formations, and then have on those unusual circumstances when you have to surge for a large operation a requirement to go to our Reserve components. That is not what is happening right now. So it is a right-sizing of the force and a decision on how to best achieve the right mix and balance here.

Having said that, our Reserve component soldiers have been absolutely fantastic in their response to these call-ups, many of them, on very short notice. They have done what we have asked them to do in days when we would have normally wanted to give them weeks to respond.

Senator REED. Admiral Clark, from your perspective?

Admiral CLARK. I do not have the same circumstances the General does, but I do have the issue for us and where we are in the manning circumstances about force protection. We have used a number of these individuals in the force protection role. I have about 5,000 people called up today, so my numbers are dramatically different than the other Services.

We will be able to sustain this where we are. The challenge is: how do you get the right mix so that you are not constantly calling on the Reserve structure to now handle what is in effect from where I sit a new requirement for security? We are moving and will in this budget this year bring more active duty people into the structure to take care of basic force protection challenges that we face.

Senator REED. Thank you.

General Hagee.

General HAGEE. Yes, sir. The Marine Reserve is pretty much a mirror image of our Active-Duty Force, except for certain functions like PSYOPS and civil affairs. We have approximately 14,000 Reserves on active duty right now and that is a result of our prep for what action we might have to take in Southwest Asia. We can maintain that in the near term.

Senator REED. General Jumper.

General JUMPER. Sir, I think one of the challenges we all have is to try to determine the new background level baseline activity that is going to be required of all of our Services as we go through the dynamics that we are going through now. Certainly with the addition of Afghanistan, the aftermath of Kosovo, all of us have had to rise to a new, higher level of basic activity in all of our Services.

This also dictates how the mix has to go between the active and the Reserve. We have done some minor adjustments in the Air Force with combat search and rescue forces, substituting one capability in the Reserve Forces for active duty combat search and rescue.

So I think this is going to be an iterative process. I do not think we are going to be able to answer the question of the right mix or even the right tempo of activity for some time until we see how we baseline out again.

Senator REED. Thank you.

Admiral Clark, I noticed that the budget proposal cuts over $400 million in submarine research and development, but my hunch is that a lot of our research and development funds, not just within the Navy but throughout the Services, are being cut. What is the impact in terms of future technology from these cuts in research and development?

Admiral CLARK. I do not know exactly which budget line you are referring to, but obviously research and development is the lifeblood for future development. So we have a strong R&D budget in this submit. But obviously, your question, what is the role, is the lifeblood, so it has to be right.

I would be happy to address the specific if you have it. In terms of the total macro numbers by community, I really do not do it that way.

Senator REED. We will specifically get you some information, then.

My time has expired. Thank you.

Senator MCCAIN [presiding]. Senator Allard.

Senator ALLARD. Thank you, Mr. Chairman.

General Jumper, we have the Air Force Academy in the State of Colorado. We have a number of allegations that are surfacing now about women who have been raped at the Academy. There was a problem in the early 1990s with some sexual harassment cases, and I know that the Academy tried to deal with the problem by putting in place some procedures to allow women to go ahead and report a rape case or sexual harassment. Then, there was a GAO report in 1994 that had some recommendations on what could be done as far as the procedures concerned.

Since the investigative reporters have brought up this situation and consequently we have had a number of women who have contacted my office. I think we are up to about 16 now. There is one common thread. I mean, there is a number of common threads that run through with these cases, but there is one common thread and that is that they are working under an honor system in the Academy. They are encouraged to step forward and they are given an amnesty opportunity. Then, they are brought in and the case is investigated. They are put in a position where if they want to stay in, continue to be in the Air Force as a career, they have to lie.

So this really puts them in a box, and I hope you will take a close look at what is happening at the Academy. I was hoping maybe you might have a comment or two.

General JUMPER. Senator, I could take up the rest of your day with my comments on this subject. First of all, let me assure you and other members of the committee that there is no place in the United States Air Force for any potential officer who would treat any other potential officer in the way that has been alleged.

Secretary of the Air Force Jim Roche and I are the personal action officers on this particular issue. Before this came to light in the press, we had other indications that some of the processes by

which these infractions are reported were not as they should be. There have also been suggestions that women who surface these are encouraged not to press charges because the circumstances they found themselves in leading up to the crime may have compromised their situation.

Let there be no doubt that assault and rape are crimes of violence, and crimes of violence will be treated separately from the circumstances that one might find themselves in leading up to that crime of violence.

We have a team out there right now looking at the very processes you mentioned, Senator, to make sure that anyone at the Academy has a clear channel to report these criminal activities and that we have the means to deal with them appropriately.

Senator ALLARD. I appreciate your comments, General Jumper. I think there are two problems there. Number one, maybe some of these cases in the past need to be reviewed a little closer. Number two, I think most of the women that are contacting my office are concerned about the future. I see that you are too in the comments that you just made before this committee. It is important to make sure this process is corrected so that we have a team—we do not have a victim within the team that somehow or other gets themselves in an untenable situation.

I appreciate your comment.

General JUMPER. Senator, if I could just add one comment. I have two daughters in the Air Force, and I have a third one who will start ROTC next year. So you are looking at a dad who has little tolerance for this stuff.

Senator ALLARD. General, I understand. Very good. Thank you for your comments.

I would like to move on to another issue within my 6 minute period here, and that is missile defense. I am very interested developing and getting our missile defense system deployed out there. I think it is a high priority for the President also.

The Missile Defense Agency is developing these systems, but I think ultimately you are going to be the users of that system. So my question is, are you all prepared to make the ballistic missile system a core mission for each of your branches of the Services? I am talking Navy, Air Force, and Army. I am assuming it may already be becoming a part of your core mission.

So I would like to have each one of you comment on that if you would, please. We will start with General Shinseki and we will just move on down the table, Admiral Clark and then General Jumper if you would, please.

General SHINSEKI. Senator, the Army has had a long tradition of association with missiles and, yes, we are part of this National Missile Defense Program. Our contributions currently have to do with, even as the National Missile Defense Program is being stood up, our capabilities are in the terminal attack business with our Patriots and our THAAD missiles. Right now they represent about the only point to point attack, missile to missile attack capability. Even as other capabilities are being stood up, we are already part of this effort.

Senator ALLARD. As a part of your core mission now; is that where we are?

General SHINSEKI. We have been part of missile defense as part of this.

Senator ALLARD. Core mission?

General SHINSEKI. Yes.

Senator ALLARD. Admiral Clark.

Admiral CLARK. We have had an incredibly successful testing year the last 12 months, six for six and three direct hits. Three were tracking exercises. We absolutely are prepared to move into the future on this.

Now, as to whether it is core or not, missile defense has been a core, but different kinds, near as opposed to ballistic missile, long-range capabilities. The proposal put forward would have us moving to an interim capability in 2004. We anxiously are pursuing that. In fact, the Director of the Missile Defense Agency was coming forward with a proposal to build a test platform and I came forward with a counterproposal that I commit a ship now to that program so we do not lose time in that effort. We are on board and moving forward.

Senator ALLARD. I think a big part of that is this concept of the spiral development.

Admiral CLARK. Correct.

Senator ALLARD. I think you can play a key role in getting it started there.

Admiral CLARK. Yes, sir.

Senator ALLARD. Thank you.

General Jumper.

General JUMPER. Sir, we will certainly consider it core to the Air Force, whatever our role emerges in the future. We know that we have a significant program with the Airborne Laser already under way. It will blend in with this program, and we will be working with STRATCOM and Northern Command as their roles work out, and our components will then be a part of the implementation, however it is designated.

Senator ALLARD. Thank you all.

My time has expired, Mr. Chairman.

Senator MCCAIN. Senator Dayton.

Senator DAYTON. Thank you, Mr. Chairman.

General Shinseki, I want to thank you also for your distinguished service and recall that when I attended this hearing 2 years ago and each of you—and this was my first time—expressed your own views directly to this committee, regardless of other considerations and pressures as others did as well. I certainly in subsequent years, especially last year, had the chance to see how vital that is and how courageous at times it requires someone to be. I want to thank you specifically for that.

I want to follow up on Senator Inhofe's question a little more regarding the NLOS cannon system. What specifically is in the fiscal year 2004 request for that, what components of that development? Are those locked into fiscal year 2004? Then are we set up now step by step? You said fiscal year 2008 is the expected deployment.

General SHINSEKI. Well Senator, we took the moneys that were available coming out of the Crusader program, focused it into the Non-Line of Sight Cannon. This Congress added additional moneys

to ensure that the development would be visible and continue, and that is all on track.

This year in the fiscal year 2004 budget, we have taken that Non-Line of Sight Cannon program element, which was a separate element, put it together with Future Combat System overall, those vehicles, because it is thought that this Non-Line of Sight Cannon will provide us the common chassis on which all the other systems would ride. We watch that very closely, and that is addressed in the budget.

Senator DAYTON. Thank you.

One question I will ask each of you, and again I will start with General Shinseki again. On the budget proposal for the 5 out years, it is basically in the DOD component for this coming fiscal year $379.9 billion and then for the next 5 years it is approximately $20 billion. Actually, it is a 5-percent increase initially, but 4 percent at the end. So my thought was, if you spend that increment of funding over the course of the plan you have laid out here, what in fiscal year 2009 will be the major developments or improvements or next steps forward, irrespective of service areas? Does that progression reflect your own priorities, your own view of what we most importantly need to do to be ready to fight whatever we have to fight in 2009?

General SHINSEKI. If you look out, the Army is extending from the fiscal year 2004 budget, but from fiscal year 2004 to fiscal year 2009 you will see that on the moneys generated, Future Combat System, that new capability that we are looking at in 2010, that we will begin to field that in 2008 in small increments, and the first brigade-sized element in 2010. So the Future Combat System, precision munitions, sensors and communications, what lashes this together is the C^4ISR, if you will, the ability to link all these capabilities. Additionally, missile defense technology, a significant investment of about a billion dollars; about a billion dollars in science and technology as well. So these are the major categories that we will see accomplished in 2010.

Senator DAYTON. Admiral?

Admiral CLARK. Senator, the major issues are the recapitalization of the existing force and then moving forward with transformation. I have testified before this committee in previous years over the challenges that I face in that recapitalization issue and that I need $12 billion a year in my SCN account, for example, and have not had it.

As I move toward the out years and will we be doing everything we need to do, the out years, we are doing everything we can to turn dollars into investment in the future for recapitalization, modernization, and transformation. I am encouraged by the out years. It is easy to see the improvement in the out years, but we have moved the budget in a way that puts the resources in the ship construction account, that puts the resources into the transformation we need in the aviation side of the house.

For example, General Jumper and I are working—this will be reflected in future budgets—on how we can team to make the unmanned combat air vehicles and how we can get there quicker. I absolutely see the kind of transformational things that we need in

the future as well as the number of ships that we need to build so that we can recapitalize for the first half of the 20th century.

Senator DAYTON. Thank you.

General?

General HAGEE. Some of those transformation items that we have talked about as far as the Marine Corps would be the Advanced Assault Amphibious Vehicle. In fiscal year 2009 we are going to start seeing, I believe, the Joint Strike Fighter coming off; tiltrotor technology, which right now is doing very well in the testing, will be available. We will be in the middle of our upgrade of our Huey and Cobra to a four-rotor blade on each one of those helicopters.

We will have a replacement for the LHA. We will also have a way ahead for the replacement for our Maritime Prepositioned Force.

Senator DAYTON. Thank you.

General JUMPER. Sir, I think we will begin to see some of Secretary Rumsfeld's initiatives in transformation starting to come to fruition, where we streamline processes; we get the operational community, and the acquisition community, the scientific community together during the development of programs, and we start to get things out much quicker to the field.

As far as the Air Force is concerned, I think we are going to see an increase in our ability to talk directly between space, air, land, and sea platforms, so that we can get the machine-to-machine interfaces that right now go through travel communities and analog eyeballs in order to interpret results.

I think we will see a great uptick in our ability to network. I call it the cursor over the target. The sum of the wisdom of all of our systems talking to one another equals a cursor over the target that we can act on immediately. I think that we will see great improvements in our ability to deal with future threats such as cruise missiles, which is a big worry of mine, and mobile targets in and under the weather, in and under the camouflage, being able to work with General Shinseki's concept of operations to help our folks on the ground, all these things.

The next generation of strike technology, whether it is a bomber, whether it is in orbit, from orbit, or through orbit, are going to be questions we are going to be asking in the coming months to prepare for future threats.

Senator DAYTON. Thank you.

Although my time has expired, you say you have the resources you need, so I would say that anything that is not in this, especially in these out years, that you think is either not in that should be or that you think is underfunded, I would appreciate having that in writing in the next month or so. But I thank you all.

Mr. Chairman, my time has expired.

Senator INHOFE [presiding]. Senator Sessions.

Senator SESSIONS. Thank you, Mr. Chairman.

I thank each of you for the tremendous service you have rendered. You have led in changing our military establishment and transforming it to a more lethal and mobile force that we respect, that leaves us with the capability of affecting world events in a positive way. We really appreciate that, all of you.

I know there are things that remain to be done. There will be challenges you need to face, and whenever you make a change someone is not going to be happy. But I think the change is going in the right direction and I salute you for that.

I know that some may want to continue to discuss and debate the niceties of the situation in Iraq, but I would just recall that we have voted 77 Senators and overwhelmingly in the House to authorize the President to take the action he believes is necessary without a UN vote, without a NATO vote, and I expect that the President will do that. It strikes me as really ludicrous or really worse, pernicious that France and Germany would suggest that we need to give at least 4 more months to the inspectors when Saddam Hussein could, within a few hours, disclose his weapons of mass destruction and the matter would be settled and we would not have a problem.

So we need to give him more time to do something he could do in one day is beyond me. So I hope the President will continue to press on the United Nations the need for them to be responsible, be relevant, and to honor the resolutions that they have previously issued.

Gentlemen, on the Guard and Reserve, there is some concern about whether we have them configured properly and whether or not we are able to call them up in a timely fashion and we have the right forces to call up. They are prepared to serve. Alabama has the highest per capita National Guard service in activation of any State in the country, and we are proud of that and willing to serve on that.

I visited Opelika and Brundage and my old Army Reserve unit that I spent 10 years in has been activated for the second time. They are in Kuwait. They were there 11 years ago.

I would just ask, are you satisfied where we are with the Reserves in terms of training? First, I would like to say the training and their capability and their equipment are maybe not perfect, but is so far superior to what it used to be. It is so close to active duty in most instances.

But are you satisfied we are configured correctly and that we are using them as wisely as we can? General Shinseki, I guess you have the most. Maybe you can give your thoughts.

General SHINSEKI. Senator, as I said, we have used them a lot more than I would have expected. I have watched this now for a number of years and I have talked about the end strength of the Army and the fact that we have gone to the Reserve component for many of those routine missions. I mean, they are in the Sinai today, they are in Bosnia, they are about to go to Kosovo; this suggests that for these ongoing operations that we are going to them far more frequently than I think any of us expected.

I do know that there is stress on them. For these missions, we have the time to bring them up to the mission standard and they deploy and do a fantastic job. For a large-scale expansion on short notice, which is really what the members of the Guard and the Reserve have their focus on, this adds to the challenge. When they are being used for those routine day-to-day missions, it adds to the stress.

Are they able to do it? Yes. Are they better today than they were 5 or 10 years ago today? Much, much better. A lot of effort on their part and ours to get them resources and training to the standard. But there is stress on their formations and following this set of mobilizations we are going to have to take a good hard look at right-sizing the force and getting to the right mix. Those studies are under way.

Senator SESSIONS. So those studies are under way?

General SHINSEKI. Yes.

Senator SESSIONS. Any of you want to comment further on that? [No response.]

One of the things that we need to continue to strive for in our transformation are new methods of warfare: Special Forces, which I hear you say are most stressed; precision-guided munitions that we need enough of; and unmanned aerial vehicles and maybe unmanned ground vehicles. Those are transformational matters of great importance and it seems that we are somewhat stressed in each one of those areas and we could perhaps be further along in each one of those areas than we are today.

It strikes me that in any likely conflict in the next decade these fores are going to be key to our success.

I will start with General Shinseki again. Do you have any comments or are we where we need to be with regard to these type forces and should we strive to do more?

General SHINSEKI. Special Operations Forces?

Senator SESSIONS. The Special Operations Forces, the unmanned aerial vehicles, the precision-guided munitions, and things of that nature that represent modern warfare.

General SHINSEKI. Special Operations Forces, you have already begun to see some adjustments on the part of the Army. Even before this latest expanded call-up or requirement for Special Operations Forces, in this next budget we have added something on the order of 1,800, perhaps 1,900, additional people that come from the Army, and it takes us a certain amount of time to grow that capability and then transition them to the Special Operations Forces.

We are even recruiting directly off the street for youngsters with particular skills and capabilities that may go directly into that kind of unit. So we are looking at that. We have added to their budget in fiscal year 2004. So those things are under way.

As I indicated earlier, we are investing in precision munitions. In some ways if you look at the efforts of the Army to digitize in the 1990s, it was the term that was used to describe what we were doing to create better situational awareness for our units and our formations so we could more precisely target those things we wanted to bring our fires against. Much of that investment is being realized today.

For the ground combat formations, it is distinguishing between ourselves, our friends, and those adversaries who we want to target. Much of that is going on, a complement of now precision fires being able to link into that. Those investments are being made.

Senator SESSIONS. Admiral, a comment?

Admiral CLARK. If I could. We have made a lot of progress in the PGM world. I feel real good about where we are. We are on a curve. We have not flattened out. This is a good news story. Gen-

eral Jumper and I are working together to make sure that we have the right mix of weapons and we have a great partnering relationship going on with the Air Force.

I am really excited about what is happening in unmanned vehicles. I absolutely believe this is one of the most important technologies for us to pursue. We had a successful flight of one of the unmanned prototypes this last week, a combat vehicle, and this is all headed in the right direction. Again, this is an area where the Air Force and the Navy are working hand in glove, seeking to chart a path together so that we can optimize and get the most bang for the buck for the taxpayers' resources.

The area where I am a little more concerned is the SOF question you raise. We have to look at this carefully. By the way, with the command relationship that exists, some of these forces work directly for Special Operations Command and not for the Navy per se. But we know that they are turning this force tightly.

The demand on this resource is significant and I would expect that we are going to see a requirement to increase this force structure.

Senator SESSIONS. General Hagee?

General HAGEE. Sir, I would strongly agree about the use of unmanned aerial vehicles.

Senator SESSIONS. Could I just interrupt. I notice that the Navy sent out a memo, according to The Washington Times article, that a capability gap exists and that a sense of urgency needs to be placed on unmanned aerial vehicles. Would you agree with that, Admiral Clark?

Admiral CLARK. I do agree with it and that is why I am so excited to report to you that we had a very successful flight last week. We have unmanned vehicles. Now, I am talking about the next generation. General Jumper and I are working on unmanned combat vehicles that will be carrier-capable. If you look at the nature of our operations cyclic off the carrier or—we need more dwell time.

My favorite new word in the last year is "persistence"— persistent combat capability. We need that capability, and I believe that the unmanned regime is going to give us great capability. It is coming. There are investments for it in this budget and there will be, and we are working on additional things now for the future.

General HAGEE. Sir, we are also working with the Navy and the Air Force in the unmanned aerial vehicle area, both with sensors and the combat unmanned aerial vehicles. We are also working on the ground unmanned vehicles, too, mostly in the sensor area.

As I mentioned before, we are working with Special Operations Command. In fact this afternoon, I am meeting with General Holland trying to identify those areas where Marine forces that are already forward deployed might be able to relieve some of the stress on his forces.

Senator SESSIONS. Thank you.

General JUMPER. Sir, I am very proud of how we are getting this stuff out in the field in efforts like we described with Sergeant Yoshida, who is working directly with commercial industry, with our acquisition community, to take off-the-shelf technology, get

them into the hands of our combat controllers, and do it now. I think that is a good model for the future.

On things like the unmanned air vehicle, we are making the Predator UAV as quickly as we can. We are making two a month. One of the problems that we have is we have to balance the things we are trying to do with that vehicle with our ability to have a stable production line, because since 1999, we have added the laser designation capability to the Predator, we have added the Hellfire missile to the Predator, and other special capabilities that we keep going back then and trying to refit into the ones that are being manufactured now.

We have a Predator B on the way that is going to have six weapons stations on it and it will improve that capability significantly.

Then with the precision-guided munitions, if you recall, Senator, back as recent as the Kosovo war we did not have the Joint Direct Attack Munition (JDAM). The JDAM, which is GPS-guided, is on everybody's tongue now. We did not even have it in Kosovo. We were dropping prototypes out of the B–2.

Since then we have tens of thousands of these things that Admiral Clark and I are out procuring at a rate of about 2,500 a month by July of this year, as quickly as we can make them. So I think the emphasis is there. I could go on and on, but I think the emphasis is there and we have a deep appreciation for what you are talking about, sir.

Senator SESSIONS. Well, we do not want to run short.

Thank you, Mr. Chairman.

Chairman WARNER [presiding]. Thank you very much, Senator.

Senator Kennedy.

Senator KENNEDY. Thank you, Mr. Chairman.

I join with all the members of the committee in commending all of you for the job that you have done preparing our Armed Forces to deal with the eventualities that we are going to be facing, appear to be facing very soon in terms of Iraq. At the time when these servicemen are called to perform, all of us are going to be strongly behind them.

I am glad we talked earlier, in response to questions, about the preparedness of the servicemen and women. I do not believe that this conflict in Iraq is going to last a very long time. I myself am most concerned about Osama bin Laden and al Qaeda, the security issues that are presented by them still, and those issues that are presented by them in terms of terror here at home and around the world.

I am very concerned about North Korea and the dangers that they have in terms of production of nuclear weapons grade plutonium.

I am glad that General Shinseki and others talked about the training of our troops to deal with chemical and biological weapons. I am sure that the real challenge that we are going to face, I think, eventually is whether as a result of this conflict, with the inspections if they fail and they are not followed through or cannot be completed, is the danger of a recruiting ground for al Qaeda in Iraq and among the Arab world.

General Shinseki, we talked about feeding the people in Iraq, 24 million Iraqis, 60 percent of them being fed and probably food

being stored in barns. It is not difficult to assume that those barns are going to be burned down. So you end up with individuals that after 3 days may not be looking at American servicemen and women as liberators.

Setting up the local police, when you have these bloodletting feuds that have lasted over a lifetime, a judicial system in a country that has never known a judicial system. How is that going to be developed? What is going to happen in terms of American servicemen if the Kurds start going over and reclaiming their old lands? Are we going to become involved and embroiled in that? What are going to be the orders to our servicemen?

We read in this morning's papers we are 2 to 3 weeks away from moving, so there must be some instructions. What is going to happen when the Shi'a move into the southern part of Iran to reclaim their religious cities? Where are American servicemen going to be over there?

So these are some of the concerns. At the same time, we are seeing the North Koreans moving ahead in terms of their production of weapons-grade plutonium. It appears to me that we have developed and sustained a two-war military to only have it run by an administration with a one-war attention span. Will we resolve the crisis before or after in terms of, in Iraq, before or after the North Koreans produce a few more bombs?

What is your thinking today in looking at the danger that that poses to the security in the Pacific, the dangers of an arms race there, of real conflict? What are your plans in terms of telling this committee how we ought to be considering the issues of using whatever is going to be necessary in terms of force in order to protect our interests there?

What is the timing going to be? What should we know, given those realities today and given the challenges that are presented?

I do not think anyone is doubting that these men and women are going to be able to get into Baghdad. That is, at least for some of us, just going to be the beginning. I want to bring up the whole questions about the Reserve and the Guard. In my State, Massachusetts, we are proud of the ones that have served well, the highest activation since World War II, with all the implications that has in terms of primary responders that you have talked about.

At a time that we see additional troops going to the Philippines, additional troops going to Colombia. Primarily my focus of the question is on North Korea, your statement of whether we are going to have enough time in North Korea, and then I am going to run out of time.

But I want to hear from General Shinseki about the administration's cut on Impact Aid for schools, $130 million, cutting back on school budgets in districts where servicemen are going over to Iraq and these Impact Aid funds are 30, 40, or 50 percent of school budgets. It is beyond belief to me on this matter.

If someone could make a comment, just if they would on that and the other issue about how they see this unfolding responsibility on the military and how that fits into the timing for our security interests in North Korea, with its imminency of developing the weapons-grade plutonium.

General SHINSEKI. Senator, I think you have described quite well this challenging and complex environment we find ourselves in today. Had we sat back 3 years ago and described it, it would not have been exactly as we see it. Maybe it is a good caution to us that in this business of trying to anticipate it is not precise and sometimes you have to have a little of added capability to be able to adjust to these unanticipated surprises.

I think in our discussions of two major combat operations, one a decisive defeat and the other a significant, swiftly defeat the efforts, you can add a third major contingency here and that is the global war on terrorism. Several years ago that was not seen as a requirement. So the stress on the requirements has certainly spread, at least in the case of the Army, our ground forces cover more missions than we would have anticipated.

We are concerned about what appears to be happening in North Korea, but we also know that there are actions under way to deal with that. For the present, we look at our people on the ground there and look at what requirements we may be asked to provide to the combatant commander should tensions go any higher. We are in the process of doing that and, as I indicated earlier, to meet his requirements it would probably involve additional mobilization of our Reserve components.

But I think your questions are appropriate. I would say that in the aftermath of this series of crises, as we think about where we position U.S. military presence for the future, these are issues that ought to impact the strategy that outlines where those capabilities ought to be positioned.

Senator KENNEDY. If any of the others want to add to that?

General JUMPER. Sir, could I comment on the Impact Aid?

Senator KENNEDY. Sure.

General JUMPER. I just learned about this yesterday, as a matter of fact. I am not sure exactly what happened, but it is certainly of concern to the Air Force and, as the father of a child who goes to a school that benefits from this sort of aid, it is something that we will go back and look into. It was not something that was recommended by my service, I can tell you.

Senator KENNEDY. It is a $115 million cutback. Thank you.

I know my time is up. The policy decisions are not made by you. They are made by the administration and obviously to the extent Congress does. So everyone has a high regard for all of you, and I think it is almost because of the extraordinary high regard that we have for all of you we want to make sure that you have what you need to do the job and not being asked to do things which put you at undue risk.

Thank you, Mr. Chairman.

Chairman WARNER. Thank you.

Senator Collins.

Senator COLLINS. Thank you, Mr. Chairman.

General Shinseki, I want to join my colleagues in thanking you for your extraordinary service.

I also want to pursue the issue of the readiness of our troops to face a biological or chemical attack. Last July, the Army Audit Agency submitted a report that was critical of the Army's preparedness to deal with such an attack, and the results of the audit were

very troubling. Of 25 units reviewed at Fort Hood and Fort Lewis, 18 of them were found not to be proficient in operating chemical and biological defensive equipment. Inspectors also found that many units were not performing adequate maintenance on their chem-bio equipment.

There have been other reports, recently by "60 Minutes" and others, that have also raised very troubling questions about whether our troops would be adequately prepared and protected if they face chemical or biological weapons.

First, could you tell me how the Army has responded to these audits and reports? Second, are you personally confident that our troops are adequately trained, equipped, and prepared to face a chemical or biological attack?

General SHINSEKI. Senator, just a point of clarification. Was that report a year ago or 2 years ago that you are referring to?

Senator COLLINS. I believe it was last July, just this past year.

General SHINSEKI. Last July. Okay, there have been several of these surveys. In some cases, we have asked these agencies to go out and take a look because of things we have heard. The one I am most familiar with was several years ago. I would have to go back and take a look at this report.

I will tell you when we looked several years ago, when we talk about a battalion sized unit, 2 years ago our problem areas were with the two soldiers who were on the battalion level staff that had responsibilities for certain select pieces of equipment. So in a 500 to 800 person organization, the focus of that investigation was we found some shortcomings in training and maintenance at that level, and we have gone to work and corrected those things.

I will have to look and see specifically what this last July report was about. But whenever we discover there is some concern, we go back out there and ensure that the commanders are doing, and are resourced to do, what it is we expect of them. The training that goes along with operating in this environment is part of our mission set that we train to.

As I say, whether you are at garrison at Fort Stewart in the wintertime or August in the National Training Center, you can expect that these tasks are part of that set of skills that individuals have to train to.

The answer to your question: I am confident we are training and that standards are significant. This is the toughest part of our training mission. For those units that are currently on the ground in the forward areas, I can tell you they are dealing with this requirement on a daily basis.

Senator COLLINS. Thank you.

Admiral Clark, I am pleased that the budget this year turns the corner on shipbuilding and provides for funding for 12 ships. But nevertheless, the Navy is still dealing with a legacy of underfunding year after year and the result of that with the planned retirement of the *Spruance* class destroyers is that the fleet is projected to fall under 300 ships in coming years, bottoming out at, I think, 291 ships in the year 2006.

You have testified in the past that ideally to meet mission requirements you would need a fleet of approximately 375 ships. Is

that still your judgment, that a fleet ideally would be about that size?

Admiral CLARK. Yes, Senator, it is.

Senator COLLINS. I would like to talk to you about how we can recapitalize our fleet, not only through new construction but also modernization of the *Arleigh Burke* class of destroyers. It seems to me that one way that we can reduce total life-cycle costs is by reducing the crew size on our DDGs using the technological breakthroughs and designs that we have learned in designing the DD(X).

What are your thoughts on modernization of the DDGs to make sure we are maximizing their useful life and also reducing overall costs by reducing the size of the crew?

Admiral CLARK. I think that is absolutely the right direction to go. We have been doing some experimenting with Smartship for the last several years. We see a lot of that manifested in the design of DD(X). While we do not know exactly how many people DD(X) is going to have on it, we know it is going to be dramatically less than what we have on our main line ships of the line today.

When DDG comes up for its midlife—and we must begin to project toward that midlife upgrade—we are going to need to apply the improvements that technology will allow us to bring to bear.

Senator, when we talk about the total number of ships and we talk about capability like DDG, the *Burke* class is a great ship. It is a terrific ship. Still building them. But one of the things that I do not believe that we have always done as well as we should have done in our Navy is start thinking right up front, where is the midlife improvement on this platform?

Because if we do not do that, looking back over time, you lose the ship early. The taxpayer does not get the return on investment that it laid out when it invested in the platform. So we clearly, we are not there yet on DDG. We are still building them. But we have to be moving toward that with the things that we have discovered in some of our Smartship experimentation.

Senator COLLINS. Thank you.

General Jumper, my time has expired, but I just want to associate myself with the concerns expressed by Senator Allard on the allegations involving rape and other sexual assault at the Air Force Academy. One of my proudest responsibilities is to recommend young men and women to attend our Service academies, and the idea that I am recommending young women who then may be at risk of sexual assault is just appalling to me. I know that it is to you as well.

I just want to let you know that in my capacity as chairman of the Governmental Affairs Committee, I, along with Senator Lieberman, have asked the Inspector General of the Department of Defense to investigate these allegations. I am pleased to hear your comments as well this morning.

Thank you, Mr. Chairman.

Chairman WARNER. Senator Collins, I assure you that when I first learned of this problem several weeks ago, in consultation with our colleague the Senator from Colorado, we have taken those steps to posture this committee so that we can review the findings. We urged the appropriate Air Force officials, including our witness today, to initiate these steps.

I thank the Senator for her concern because I likewise, along with every member of this committee, take such pride. As a matter of fact, my Academy Day is coming up soon, when some 400 or 500 nominees or applicants and their families gather here at the Senate to review those options.

I thank the Senator.

Senator Pryor, would you indulge me? I just wish to make an announcement to the committee. Senator Levin and I have arranged for tomorrow morning a classified briefing for the entire committee on the efforts to date by the administration with regard to the planning for the post-Saddam Hussein Iraq. This is an interagency effort. We will have briefers from the various departments and agencies of the Federal Government initially tasked with this. I hope Senators can schedule their time to be available for this briefing.

Thank you, Senator Pryor.

Senator PRYOR. Thank you, Mr. Chairman.

I, too, want to concur with Senator Collins' statements a few moments ago about the academies, and I know that you are going to do everything in your power to do what we need to do to make that situation right.

Also, I want to just thank you all for being here today, thank you for your service to this great country. I think the war on terrorism has touched every person in our Nation in various ways and certainly everyone in this room is touched by it in some way. I know that you cannot pick up the paper in Little Rock without reading about the Little Rock Air Force Base or the fact that many of our National Guard units have been called up, including our Air National Guard unit there in Fort Smith, and what is going on at the Army's Pine Bluff Arsenal as part of the war on terrorism.

It has touched many lives, not just in my State, but all over this great country.

Also, I must say on a personal note, Senator Warner, that when I was the Attorney General of Arkansas, my director of operations was a one-star general in the Arkansas National Guard, and he has been called up now for I think over 6 months now. Part of his responsibility is to assess readiness of various National Guard units around the country and to call them up as need be. He is now in Georgia doing that.

I know that preparedness is something that you are very focused on. I appreciate your comments about preparedness today and the lessons learned in this environment we find ourselves in today. I can assure you, and I think I can speak for the committee, that we are going to do everything in our power to make sure that our men and women are the best-trained and best-equipped in the world. We are just going to do our part on this committee to continue to make sure that you can complete your mission and the mission of the United States of America.

I really only have one question today, Mr. Chairman, and that is about retention. Some of you mentioned that in your opening statements. I know it is something in the last several years that has received a lot of publicity and attention, as it should. It is an important part of our military picture and an important part of our preparedness. I would like to hear from each one of you today, if

possible, about how you feel we are doing and your particular branch is doing on the issue of retention and what we need to do to get you to the level where you are very satisfied with retention.

General SHINSEKI. Senator, up until this point, retention has not been an issue for us. In fact, if there was a challenge it was recruiting 3 years ago. We fixed that. The last 3 years we have met our recruiting targets. But at the same time, our retention requirements we exceeded each year in each of our components.

The stress on the force right now may affect decisions after this mobilization period is over about primarily Reserve component soldiers, whether they stay in their formations or not, and I think that is something we have to pay attention to. I think whatever we can do to work with employers of those soldiers is also important, and we do. We go out and through our contacts engage those employers, thank them for what they do, and explain how important this is.

But there is stress out there. I think we are all aware of it.

Admiral CLARK. Senator, I always love this question because we are doing better than we ever have in our history. We are going through a period for the last 2 years we have had the highest retention we have ever had in the history of the institution. Part of this reason is because young men and women want to be part of the solution. Young Americans want to be there, and that is what we are seeing.

With regard to recruiting, last year we took 7,500 out of the plan because we had more people than end strength would allow us to have. So I would just sum it up like this: our young people are responding to the challenge.

Now, make no mistake. They are responding to a whole series of signals. One is the global war on terrorism. But they are responding to signals that they have received from the American people and from Congress as well. There have been major things done to help us win this battle for people.

I would tell you that at this stage of the year I am running about 20 points over my annual targets. But I will tell you why this is; there are reenlistment incentives for people to stay. When those reenlistment incentives run out, well, we will see a change in the way that they respond.

So very much what has become evident to me in my 2½ years in this post is that they are looking for signals from the American people and they like the signals that they are getting from the American people and from Congress. Congress has helped us put together financial incentive packages and the things that they are responding to.

But more than anything else, my summation of what is going on with our young people is they want to make a difference. I would ask you to continue to support us on the issues that allow us to create and shape the force the way we need to shape it for the 21st century. There are financial tools that are involved there and the help of Congress is critical.

Thank you.

General HAGEE. Senator, I could not agree more with the Chief of Naval Operations. I would like to thank this committee and Congress for the support that you have given us and our young men

and women in uniform. Quality of life makes a difference. Selective reenlistment bonus makes a difference. Those are some of the things that the Admiral was talking about. Obviously they want to serve.

As far as the Marine Corps specifically is concerned, we have had the best year in retention in our officer corps this year over the last 18 years. This year on our retention of our first term enlistees, in January we had already retained 80 percent of what we wanted to retain for the entire year. So like the Navy, we are doing very well in retention both on the enlisted and the officer side.

General JUMPER. Senator, in the Air Force we are experiencing similar results. Our recruiting for last year was finished by the end of April. Our retention numbers are higher than they have been in years, and we set very high retention standards because we spend so much money training many of our technical people. We have experienced up to 20 points better than the goals that we have set.

I think I agree completely with Admiral Clark. Once you expose the youngsters out there today, who many think do not have the capacity to be dedicated, patriotic, or committed, once you expose them to success in military life, then they cannot turn back. They are proud of what they do. They are proud to serve.

The incentives that have been supported by this committee have been a great help. As a result, we are experiencing the highest pilot retention we have had in quite a few years.

So we thank the committee, Mr. Chairman and Senators, for all you have done, and we need to continue to do this to keep the quality of our force as high as it is.

Senator PRYOR. Thank you, Mr. Chairman.

Chairman WARNER. Thank you, Senator.

Senator Dole.

Senator DOLE. Thank you, Mr. Chairman.

An important aspect of overall readiness is certainly family readiness, and I would like to pursue a couple of questions in this area. Having just been at Fort Bragg this past week as well as Marine Air Station Cherry Point and Seymour Johnson Air Force Base, as I talked with commanders, with enlisted personnel, with the spouses—many of the spouses, their partners had been deployed; others were about to be deployed. An issue that came up time and again was one that Senator Kennedy brought up on Impact Aid and the fact that the children of these men and women who are being repeatedly deployed deserve to have a quality education in a well-funded school.

General Jumper, I appreciate your responding to the question, but I would like to ask the rest of the panel if you would also speak to Impact Aid and how you see this in terms of the importance to your people and your families. I am concerned about this issue, and I would like to hear each of you respond to that issue as well.

General SHINSEKI. Senator, the Army has been interested in working a wide range of education issues because they have been important to our service members, the education of their family members. Impact Aid is a piece of that and it is important to our service members, seeing the education of their children.

Admiral CLARK. I align myself with the General's comments. We have a saying, we recruit individuals, we retain families.

Senator DOLE. Yes.

Admiral CLARK. We believe that. Clearly one of the major issues for a service member is making sure that their children, that they have the kind of opportunity that they dream of for them. So every one of these programs are critical.

I would say that one of the challenges for us—and this is an issue for the committee and as we look at what it takes to compete in the marketplace—is what kind of tools do the Services need and what kind of issues are the service members looking at when they make decisions about whether they are going to serve or not.

We know that, first and foremost, it has to be an attractive, appealing lifestyle. But I will tell you, Senator, one of the things that has been real clear to me. The men and women who are serving today, they are not missing the signal that is coming from the citizens of the United States of America, and that citizenry is saying to our people today: we appreciate your service. Everything we can do to send that signal will benefit our institutions greatly.

General HAGEE. Senator, I would also like to associate myself with General Shinseki and Admiral Clark's comments. When the marine out in the field knows that his family is taken care of, he can better focus on his or her job than if he is worried about what is going on back on the home front. Our young men and women today are highly educated and they want their families to be educated.

Senator DOLE. Let me raise another issue in this area. The budget includes a $4 billion request for family housing for fiscal year 2004 and about $346 million of that is for family housing privatization. I am very interested in this. It is a truly transformational program that seems to me to go directly to the issue of morale of our troops and also to the fact that if a young couple has attractive housing they are more likely to make a decision to stay in the military, to make it a career.

I would like to have each of you comment on this, whether or not this privatization as a way to move in the future might be the most cost-effective and the quickest way to eliminate alot of this substandard housing which of course exists across all branches of the Services.

I was particularly interested in the planned community concept at Fort Bragg. But if you could talk with me a bit, just respond briefly now and maybe more for the record, about how you see privatization, for example the quality of construction, how cost-efficient is it, and long-term plans for maintenance. I think this could be a great asset and I would be very interested in how each of you see privatization.

General SHINSEKI. Senator, it is an important initiative. We started this about 2 years ago. Fort Bragg is in the second tranche of posts. We started with Fort Sill, Fort Lewis, and a number of others. For us, this was the only solution because to generate the kinds of resources to do this on our own was not possible. So this Residential Communities Initiative, in which we get assistance from outside, has been a significant momentum-builder in addressing our housing needs. It is important. We think it works and we are expanding the experiment to multiple locations.

Senator DOLE. Are we devoting enough resources for this family housing in this budget?

General SHINSEKI. In terms of privatization, we are.

Admiral CLARK. We are moving forward and we got permission from Congress last year to start a privatization public-private venture in the area of bachelor quarters as opposed to the house itself. Frankly, Senator, that is the area where we are more behind.

But here is what I have to say. I do not really want to build more military housing if I do not have to. When I talk to our people, I ask them: How many of you have your own place? I want them to have a stake in America. I want them to have their own place, not a military place, especially when we get to career people. That is what I tell them.

What has happened over the course of the last 4 years as we have sought to buy down the out-of-pocket costs—we make another big step in it in this budget—is that we are seeing our service members get to a position that they can compete in the market.

Now, in the area of bachelor quarters, that is a different story. We are very much, again, experimenting with solutions here and we want to move toward that as rapidly as possible. We will have our substandard housing off the record by the end of this FYDP. It will be gone. That has been the objective.

But the most exciting thing for me is to see a young service member who owns their home for the first time. That is what I want for them. What is being done for them now is making that more of a possibility.

General HAGEE. Senator, we strongly support the public-private venture. We started several years ago in Hawaii. It has been a great success. In fact, just last year the residents threw a party for all the maintenance people. That is the response that they had to public-private venture. We opened up a series of houses in Camp Pendleton last year and without public-private venture we would not be able to reduce the number of inadequate houses that we have.

We are joining with the Navy on the experiment on PPV in the BEQ area and I am quite excited about that.

Senator DOLE. Great. Thank you.

General JUMPER. Senator, we have quite a few bases that are in fairly remote locations and we have about 38 projects planned that will address about 40,000 family housing units. I believe we are the only Service that does not get finished by the Secretary of Defense's goal of 2007, but that mostly has to do with northern tier bases where we would have to displace people. We just cannot do the shell game fast enough to fulfill the requirement. But we are pushing full speed ahead as quickly as we can.

Senator DOLE. Thank you.

Thank you, Mr. Chairman. I see my time has expired.

Chairman WARNER. Thank you very much, Senator.

Senator Bill Nelson.

Senator BILL NELSON. Thank you, Mr. Chairman.

General Jumper, is the Air Force committed to extend both contractors on the EELV over the next 5 years?

General JUMPER. Sir, there is no reason that I know of to deviate from that path. I know there are some studies underway and we

have not seen the results of those studies, but the current program is to stick with both the Atlas and the Delta programs.

Senator BILL NELSON. According to that answer then, is there money in the fiscal year 2004 budget that will enable that to occur?

General JUMPER. As far as I know, we are adequately funded, sir. I will get back if there is any doubt, but nothing has been brought to my attention that would argue otherwise.

Senator BILL NELSON. If there is any doubt, please get back.

General JUMPER. Yes, sir.

Senator BILL NELSON. Needless to say, it is important that we have assured access to space.

Now, I just found this out and this alarms me, because 20 years ago, as the Congressman representing Orlando, we started the simulation center there, for the Navy, and pretty soon all of the Services came together and that became a simulation center. For obvious reasons, this was cost effective on our training and so forth.

I have just been told that that is being zeroed out in the fiscal year 2004 budget, which is hard for me to even imagine. I would like each of your comments?

General SHINSEKI. Senator, I am not specifically sure what is being zeroed out. But the Army's simulations efforts are in Orlando, as you describe, and we continue to operate there. What you would have known as Simulation, Training, and Instrumentation Command (STRICOM) is there.

Admiral CLARK. I am unaware of any move to zero out Orlando. Orlando has been a key part in helping us put forth a transformational approach to training. In fact, key members of that organization have been on my task force who work toward the revolution in training in the Navy.

I will look into it, Senator, and see if there is anything. If there are any cuts there, I am unaware.

[The information referred to follows:]

The Navy contribution to the Joint Simulation Center in Orlando, Florida is the Naval Air Warfare Center Training Systems Division (NAWCTSD). There are no cuts of any kind scheduled for NAWCTSD in fiscal year 2004 or the Future Years Defense Program.

Senator BILL NELSON. General Hagee.

General HAGEE. Sir, I am also unaware of any cuts there.

Senator BILL NELSON. General Jumper.

General JUMPER. Sir, we have our modeling and simulation center there and I am unaware of this. We do a lot of work down there.

Senator BILL NELSON. Okay. Well, if you would check, because there is a DOD program decision memorandum, PDM, directing the cancellation of the joint simulation system program in the fiscal year 2004 budget, and that just seems to me about as contrary as we can be as to what we need to be doing.

General Shinseki.

General SHINSEKI. Senator, that is a project and an effort all of us participated in. It is one that was not delivering and I believe that is correct, that joint simulation system was having difficulty meeting its contract. I believe that is the reason it was scrutinized and decided to be lined through.

I will provide more information for the record.

[The information referred to follows:]

JOINT SIMULATION SYSTEM (JSIMS) TERMINATION

The JSIMS program was terminated in the Program Decision Memorandum 1 (PDM 1) decrement. While it did not cite a specific rationale for the termination, the program has been under close scrutiny the past year because of significant delays in achieving critical milestones, increasing costs, and little to show for the large investment. However, the PDM directed completion of JSIMS Block 1 by June 2003, which should provide the Joint Warfighting Training Center a Joint Task Force component-level training capability. The PDM also directed completion of an analysis of alternatives to identify a cost-effective method of meeting future Joint and Service training requirements. In subsequent guidance to the Army, the Office of the Secretary of Defense also recognized the Army's significant investment in the Warfighter Simulation program and provided guidance to continue that effort. With the requisite resources, we can meet our Title X training and have the capability to link with any future joint training solution.

Senator BILL NELSON. I think we all ought to be aware, because your colleagues do not seem to be aware of that. I would like a justification as to how that is in the best interests of the defense of the country as we train our troops and try to be cost effective with simulators.

Let me ask you again, General. There are rumors that we are going to have some amassing of opponents, the enemy, in the area of northeast Afghanistan for some kind of spring offensive. It could be in Afghanistan, it could be right across the line in very forbidding territory where there is a bunch of tribals.

I would like your comment on how we are going to meet that kind of resistance, that kind of attempt to blunt some of the success that we have had in Afghanistan from a military standpoint.

General SHINSEKI. I am not specifically sure on exactly this tip, but all along that border between Afghanistan and Pakistan, there are operations ongoing and we do from time to time see a buildup of capabilities. The combatant commander there, Lieutenant General Dan McNeil, working for General Tom Franks, focuses on those day-to-day operations. We provide him the capabilities to conduct those day-to-day operations.

This specific buildup for a springtime offensive, all of us anticipate when the weather gets better activity goes up. But the specific area you are referring to I probably want to take a look at and give you a better answer.

[The information referred to follows:]

OPERATION ENDURING FREEDOM

The Central Command Combatant Commander is better prepared to answer operational questions such as this. As a force provider for this operation, the Army's responsibility is to provide trained and ready forces to the combatant commander. The Army has provided all forces that the combatant commander has requested and is prepared to provide additional forces if required.

Senator BILL NELSON. Does your commander have sufficient forces to repel such an offensive?

General SHINSEKI. I believe he does. I will be certain to ask that very question just because you have asked it.

Senator BILL NELSON. I ask it for obvious reasons, because we are going to have our attention diverted to another part of the world and we sure do not want to be losing ground. I mean, it is irritating enough that there seems to be a lessening cooperation from President Musharraf in Pakistan. But sooner or later, if that

is where the al Qaeda leadership is, we are going to have to go in there and root them out, and not the least of which we are going to have to be prepared in case there is a counteroffensive from them on us.

So in whatever kind of setting you want to discuss this or your designee, I would be most appreciative.

General SHINSEKI. Senator, I would be happy to do that. There is coordination that goes on between our people and folks on the other side to ensure coordinated activities.

Senator BILL NELSON. Thank you, General.

Mr. Chairman, as I conclude, I would like at an appropriate setting, perhaps a closed setting, for us also to talk about the new military role that is apparently occurring in the Philippines, which I do not necessarily disagree with, but I would like to know how we think that that is going to be able to help us stamp out the terrorist activity in that part of the world.

It is going to be there. It is going to be in other countries, and as a member of your committee, I want to have some assurance that we are doing what we should. Is the new role symbolized by the more combat-capable, combat-ready, combat-insertive position that we are talking about in the Philippines?

Chairman WARNER. Senator, the question of the Philippines will be a part of our briefing tomorrow morning, and I wish to say to the committee that we have a closed session scheduled immediately at the conclusion of this round of questions, at which time the Senator may pose that question. So there is the first opportunity you would have to raise that question with regard to the Philippines.

Like you, I would like to know exactly the circumstances under which this decision was made and what the expectations are with regard to those deployments.

I thank the Senator.

Senator Chambliss.

Senator CHAMBLISS. Thank you very much, Mr. Chairman.

Gentlemen, let me just say that this Senator has a great appreciation for the job each of you do, for your great leadership you are providing, and for those men and women that serve under you, and to each of you, I say thank you for that.

I also have a great appreciation for the job that the administration is doing and the leadership that this administration is providing with respect to winning the war on terrorism, and thank goodness we have people who are willing to make a tough and hard decision, knowing that they have under them leadership like you and the men and women that serve under you to carry out the jobs assigned to each of them that will ensure that my children and my grandchildren are going to live in the same safe, free, and open America that my generation has enjoyed.

So for that I say thank you, and I hope you will express that to each of the men and women that serve under you at every opportunity.

General Jumper, you know my fondness for Robins Air Force Base and the great job that the men and women, civilian and military, do there, and I appreciate your comments regarding the 116th. That decision was just a great vision on the part of Secretary Roche, you, and the folks like Paul Weaver over on the

Guard side, any number of folks who participated in that. It is going to be a model for where the future of the armed services are going to go, irrespective of what branch we are looking at.

I am very proud of those folks.

General JUMPER. Thank you, sir.

Senator CHAMBLISS. I have had the opportunity to visit Robins Air Force Base many times, particularly recently. General Shinseki, I will tell you that recently I was at Fort McPherson, Fort Gillem, and Fort Stewart, and you all are correct that the quality of the force out there today is second to none. It is well-prepared, well-trained, and the men and women that are being called on to defend freedom are in my opinion the best-trained, best-service organization that the world has ever seen. That is thanks in large part to your leadership.

General Jumper, four weapons systems that I have a keen interest in are C–17, C–130, F–22, and Joint Surveillance and Target Attack Radar System (JSTARS). From a budgetary standpoint, I think the C–17 is moving forward in a very good manner. The decision on the multi-year several years ago, I think, was one of the best business decisions that any branch has ever made, particularly the Air Force.

I would like for you to give us just a quick budget update on the other three weapons systems, if you will, as it is reflected in this current budget.

General JUMPER. Yes, sir. Well, starting with the F/A–22, we have the production cap of $43 billion. We are sticking within that cap. We are on track to begin our operational tests later in this year as we finish up our developmental testing. The airplane is achieving astonishing results when you talk to the people that fly it.

We continue to have some problems with software stability that we are working very hard, and, of course, we are at the critical part of the airplane's development now where it continues to go from the development phase into the production phase and the ensuing production problems that you get when you start up production.

So we are working our way through those, but we have not come back to ask for any more money, nor do we intend to. We intend to live within that cap.

The JSTARS, of course, is a magnificent sensing device that we join with the ground forces to give them targets, moving target indications on the ground. The mission of the 116th is to train their people up to speed and get the backenders up to speed. We had a few slowdowns in the training for the backenders that we are working our way through as we get that first surge of people who have transitioned from other systems in the National Guard through that training. We are working our way through that now.

Then the C–130, I believe is the other one you mentioned. All of the problems we had with the C–130J I think have been reconciled and that is going forward now for OMB consideration. So I think everything is on track, not without challenges, but working our way through all of it.

Senator CHAMBLISS. Are we going to be able to provide the service to the customer out there with respect to JSTARS by stopping

at 17 instead of going to the full complement of 19 and moving on to the 767, where we are going to have that gap? Are you comfortable with that?

General JUMPER. Sir, we are working hard to make sure that we do not have any more of a gap than we can stand. We are proposing a transition into the Boeing 767 with the next generation of JSTARS improvements and this will be the baseline aircraft for our multi-sensor command and control aircraft that will do the sort of integration with space, unmanned, and manned platforms that we think will take us into the future—talking directly to satellites, controlling UAVs, being able to join with the other Services to provide command and control depending on who is first on the scene, being able to distribute signals around the battle space, and being able to deal with things like cruise missiles.

We use the next generation of the JSTARS platform in a Boeing 767 as our baseline for that activity. We took some decreases in funding, but we think we can work our way through that and we look forward to keeping this program vital and pressing on with it. I think it is going to be very vital for all the Services.

Senator CHAMBLISS. Thank you. All of you, thanks again.

Chairman WARNER. Thank you very much, Senator.

Senator Clinton.

Senator CLINTON. Thank you, Mr. Chairman. I listened carefully to Senator Nelson's questions about the Philippines. Will there also be additional information available about current involvement in Colombia that the committee could be advised of?

Chairman WARNER. I will advise the Senator that there is no reason why that question could not be asked if you are able schedule-wise to join us at the closed session.

Senator CLINTON. Thank you very much, Mr. Chairman.

I want to start by thanking General Shinseki for his incredible work. General Shinseki has done a tremendous job on behalf of the Army, and I am very grateful to his lifetime of service and look forward to your continuing service in whatever form that takes.

Admiral Clark, in late January, the Pentagon announced that it was sending eight Coast Guard cutters and several port security units to the Persian Gulf. As I understand it, this is the first deployment of Coast Guard patrol boats overseas since the Vietnam War. Is that correct as far as you know?

Admiral CLARK. Actually, Senator, the cutters have been deploying with us periodically and working up with us. Part of our agreement is that in time of crisis they will come work for us. The only way to make that work is to periodically do it. So they periodically are deploying with our carrier battle groups.

Senator CLINTON. What are the numbers that are currently deployed? Do you have that?

Admiral CLARK. I am sorry, I do not. We would be happy to get that for you.

[The information referred to follows:]

The number of Coast Guard cutters deploying to the Persian Gulf are:

378-foot high endurance cutters

USCGC *Boutwell* (WHEC 719)—homeport: Alameda, CA

USCGC *Dallas* (WHEC 716)—homeport: North Charleston, SC

225-foot seagoing buoy tender

USCGC *Walnut* (WLB 205)—homeport: Honolulu, HI

110-foot patrol boats

USCGC *Wrangell* (WPB 1332)—homeport: South Portland, ME
USCGC *Adak* (WPB 1333)—homeport: Sandy Hook, NJ
USCGC *Aquidneck* (WPB 1309)—homeport: Atlantic Beach, NC
USCGC *Baranof* (WPB 1318)—homeport: Miami, FL
USCGC *Grand Isle* (WPB 1338)—homeport: Gloucester, MA
USCGC *Bainbridge Island* (WPB 1343)—homeport: Sandy Hook, NJ
USCGC *Pea Island* (WPB 1347)—homeport: St. Petersburg, FL
USCGC *Knight Island* (WPB 1348)—homeport: St. Petersburg, FL

Senator CLINTON. Thank you very much, Admiral. Because in New York, as well as many other coastal States and cities, we count on the Coast Guard to guard our ports against terrorist threats and other emergencies like the one we just had the other day with the explosion at Staten Island. The Coast Guard was the first responder. We could not have responded without their lead and assistance.

So I would like some additional information that I will submit to you in writing, so that I have a better idea of the criteria that are used to deploy the cutters, how long they are expected to be deployed, what are the missions that they perform, and how we anticipate replacing those functions that are going to be left behind as they deploy with you.

I want to ask each of the chiefs a question that has been a concern of mine for many years, ever since President Clinton asked me to look into the Gulf War, the Gulf War Syndrome, and I went out to Bethesda to Walter Reed and met with a number of veterans who returned from the gulf suffering from unknown symptoms.

I became convinced in my own mind and based on the research that we were doing that this was real, this was something that had to be addressed. The President appointed a commission to do so.

Now, with U.S. troops being deployed again to the Persian Gulf, I know that you are spending a lot of time and attention trying to make sure that we do not send young men and women to war where they are out of harm's way in a conventional and traditional sense, but they return home debilitated and have to be separated from the Service and have ongoing chronic health conditions.

So I would appreciate each of the Services giving me a brief overview and then I would like to arrange a briefing that my staff is currently working on to get more indepth information, because clearly the February 2002 GAO report before the House Veterans Affairs Committee seemed to conclude that, while military medical surveillance policies had been established, still a lot needed to be done to implement the system. I think we want to do everything possible to protect our troops this time around.

If I could just have a brief overview comment from each of the Service Chiefs about that and then, as I say, I look forward to a more indepth briefing. General Shinseki.

General SHINSEKI. Senator, I would say, first of all, we all share the concern coming out of the last gulf operation, and the conclusions were less conclusive than we would like. There was a variety of issues that continue today to be studied.

I think since that last operation, however, we have expanded our detection and sensing capabilities in some rather significant ways, not just in chemical, but also biological threats. I think we are con-

cerned. We have gone back to look at what the conditions might have been then. We pay attention to it, better detection, better training. But still there are a host of unknowns here, exactly what the causes were of that gulf illness.

Senator CLINTON. Thank you.

Admiral Clark?

Admiral CLARK. My problem is a little different than General Shinseki's. Our issue is providing fundamentally protective gear for attack at sea, and we have some built-in systems to protect our people inside the ships. I would just tell you that we have made significant investments. In an open forum I would put it this way: we have made significant investments and we are ready.

Senator CLINTON. General Hagee?

General HAGEE. We share your concern, Senator. As General Shinseki mentioned, we have vehicles, platforms out there that did not exist 10 years ago during Operation Desert Storm, platforms that can identify and detect chemical and biological agents that are in the air and in the ground. We have also collected information on every single one of our marines so that we have good medical data baseline to try to, if anything happens, to try to determine what change has occurred.

Senator CLINTON. I really applaud you for that and I hope that every Service can move toward that. We have found post-September 11 in New York the fire department had baseline screenings, the police department did not. It is much more difficult to figure out what the exposures led to when you do not know what the starting point was. So I very much appreciate what the Marine Corps has done on that.

General JUMPER. Senator, I agree with General Hagee. I think the baselining activity plus the steps that have been set up to gather data around the locations is much more sophisticated than we saw last time, and hopefully the root causes of these things can be determined in time to be of help.

Senator CLINTON. I thank you.

Mr. Chairman, I think this has not only implications for our men and women in uniform, but rather significant civilian ramifications as well. I greatly appreciate the chiefs taking this on as an issue and I look forward to following with great concern what we learn and how we respond.

Chairman WARNER. Senator, I know firsthand of your deep concern about the veterans who have returned from Afghanistan and other far-flung parts of the globe as to their health, and I commend you for those initiatives that you have undertaken.

Senator Roberts.

Senator ROBERTS. Thank you.

Gentlemen, thank you for your leadership and what has been referred to doubtless all at the table as your favorite word, for persevering in your command and, quite frankly, here at the hearing.

General Shinseki, well done, sir.

General SHINSEKI. Thank you, sir.

Senator ROBERTS. You have provided outstanding leadership and I think your legacy is going to be better transformation of the legacy weaponry, and so you have achieved a great deal and we thank you for that.

General SHINSEKI. Thank you, sir.

Senator ROBERTS. Thank you for working with our former Commandant, General Jim Jones, who is the SACEUR. I think before a hearing some time ago, I said we did not need two tips and two spears; we needed one tip and one spear. We have done that in regards to working with the Marine Corps and the Marine Corps working with you, sir. So we thank you for your innovative leadership.

General SHINSEKI. Thank you, sir.

Senator ROBERTS. As a survivor along with Senator Levin of Senator Warner's forced march, which was disguised as a CODEL, to possible war zone countries where we are fighting and in my opinion winning the war on terrorism, I want to say that we have an obligation to meet with a number of men and women in uniform on the front lines. As chairman of the Intelligence Committee, I want to go out and check the intelligence to our warfighters. We went to Kuwait, Afghanistan, and Qatar as well as other locations, and we survived. I think we did, Carl. I am not quite sure.

But at any rate, I can report that the cooperation between our intelligence and our military personnel is as close as it has ever been. We now have in place information systems that will allow rapid access to current intelligence from the commander all the way down to the marine or soldier in the field.

It is my judgment that we are really learning the lessons of Operation Desert Storm and September 11.

Mr. Chairman, I hope we would not spend too much time arguing about who constitutes the greatest threat to us right this second. Is it Saddam Hussein, Kim Jong Il, Supreme Leader Ali Khamani in Iran, or Osama bin Laden? They are all major threats, all challenges to U.S. security here at home. They get worse with time if not acted upon. They all represent very unique geopolitical circumstances. They demand very tailored situations or solutions, and they all demand action now, but different kinds of action.

I have more or less a speech on this and I would ask permission that my full statement be inserted in the record at this point.

Chairman WARNER. Without objection.

[The prepared statement of Senator Roberts follows:]

PREPARED STATEMENT BY SENATOR PAT ROBERTS

Thank you Mr. Chairman. Gentlemen, thank you for your leadership. I want to thank Admiral Clark and General Jumper for their perseverance not only in service to our Nation but also in communicating with this committee. General Shinseki, well done, sir. Thank you for your leadership as Chief of Staff of the Army. Your legacy will be transformation, the shift from the systems of the past to the platforms and capabilities of the future.

Last week, along with Senator Levin, I survived Senator Warner's forced march to possible war zone countries in which we are fighting and, in my opinion, winning the war on terrorism. I had the pleasure of visiting our men and women in uniform on the front lines.

As chairmen and ranking members of the Intelligence Committee and Armed Services Committee, we were able to talk directly to the folks getting the job done for America's security from their stations in Kuwait, Afghanistan, Qatar, and other locations.

I can report that the cooperation between our intelligence and military personnel is as close as it has ever been. We now have in place information systems that will allow rapid access to current intelligence from the combatant commander all the way down to the marine or soldier in the field.

I also observed a keen appreciation for the need to fully share intelligence information. It is my judgment that we are learning the lessons of Operation Desert Storm and September 11 well.

THREATS

I hope we do not spend too much time today arguing about who constitutes the greatest threat to us right this second. Is it Saddam Hussein, Kim Jong Il, Supreme Leader Ali Khamenei in Iran, or Osama bin Laden? They are all major threats, challenges to U.S. security here at home that get worse with time if not acted upon.

They all represent unique geopolitical circumstances demanding tailored solutions. Indeed, they all demand action now but different kinds of action. Just because the military instrument of power is the choice for responding to Osama bin Laden and may become the choice for responding to Iraq, it by no means suggests force is appropriate right now for North Korea or ever in the case of Iran.

It's not that simple and we ought not to mistake complexities in the threat picture for contradictions in policy. For example, North Korea, as dangerous and unstable as it is, has not invaded its neighbor to the south since 1953.

We cannot say the same for Saddam Hussein who invaded Kuwait in 1990 with what looked at the time like intentions for Saudi Arabia as well. Not to mention the fact that, to my knowledge, North Korea is not currently harboring senior members of a terror network led by a close associate of Osama bin Laden, Mr. Abu Musab al-Zarqawi.

IRAQ

But this is really beside the point. In passing H.J. Res 114, Congress specifically authorized the President to "use the Armed Forces of the United States in order to: (1) defend the national security of the United States against the continuing threat posed by Iraq; and (2) enforce all relevant United Nations Security Council resolutions regarding Iraq." Colleagues, that resolution passed the Senate 77 to 23 on October 11, 2002.

This action was, of course, in addition to the Iraq Liberation Act, which Congress passed and President Clinton signed in to law October 31, 1998. That act clearly states the U.S. should foster regime change in Iraq.

Lastly, on November 8, 2002, the U.N. Security Council passed Resolution 1441 which gave Iraq one last opportunity to comply with its disarmament obligations.

Now, months later, the Director of Central Intelligence (DCI) has told us unequivocally that "Iraq has in place an active effort to deceive the U.N. inspectors and deny them access. This effort is directed by the highest levels of the Iraqi regime. Baghdad has given clear directions to its operational forces to hide banned materials in their possession."

Further, the DCI stated "Iraq's biological weapons program includes mobile research and production facilities that will be difficult, if not impossible, for the inspectors to find. Baghdad began this program in the mid-1990s—during a time when inspectors were in the country."

Even the latest U.N. assessments directed by Dr. Blix indicate Saddam Hussein is still not complying. Colleagues, let us be candid. No amount of U–2 surveillance flights nor increase in the number of inspectors will solve this problem, at the very least with respect to biological weapons. Let's be honest. The U.S. Government has bent over backwards to manage the threat from Saddam Hussein without further military action.

I thank the chair.

Senator ROBERTS. I want to go first of all to the commandant and ask him a question in regards to SOCOM, and I know that they have a lot of operations. Everybody has operation stress. But I understand we have 81 marines, 5 sailors organized, trained, and equipped for special reconnaissance and direct action and other special operations missions, who will be under the SOCOM operational control by October of this year. I understand the answer is yes; is that correct?

General HAGEE. That is correct, sir.

Senator ROBERTS. All right. I hope we can continue that partnership.

I am going to get down to your warfighting lab in Quantico, VA, as soon as I can. I apologize for not coming sooner. One of the questions I had as we were out to Camp Commando and Camp Coyote out there in Kuwait; I was so proud of our marines, who are operating basically in a sand trap and still performing and training their mission, and I am not surprised. You already answered this question in splendid fashion about our WMD capability and I thank you for that answer.

I have a question for General Jumper. Do you remember the old baseball combination—you and I are not too far off in age difference—of Tinkers to Evers to Chance?

General JUMPER. I am afraid not, sir.

Senator ROBERTS. You do not? Well, anybody else? Somebody say they remember that. Will you, please?

Senator CLINTON. Over here, Pat. I remember.

Senator ROBERTS. Admiral Clark?

Okay, thank you. I thank Senator Clinton.

Well, Senator Inhofe talked about Tinkers to Evers to Chance when he mentioned the KC–135s and the lease agreement that we are now working with under the national security requirements. So General Jumper, I am not opposed to Tinker, but I do not want to take a chance.

General JUMPER. Yes, sir.

Senator ROBERTS. So consequently I would like to ask, if the lease proposal under review is not approved, how will procurement of replacement tankers be accelerated? I do not see any plans down the road to do that other than to retire the 68, who really should be retired. I do not think we have any other alternative than to go to the lease agreement. Now, that is a tough thing. I do not want to get you in between Jim and myself, but that is where you are.

General JUMPER. Sir, it is a tough decision we have to make. As a matter of fact, the plan to accelerate the procurement plan which we already had on the books was the lease, and we put this lease agreement on the table for everyone to take a look at. It has been thoroughly scrutinized and the Secretary of Defense is looking at it now along with his lease committee there in the building and we are awaiting the decision.

Senator ROBERTS. I hope the decision comes soon, and I would point out that the distinguished chairman and ranking member are on record as supporting this. I do not have to say that; they will, but I thought I would anyway.

General Shinseki, recent reports indicate the Secretary of Defense is considering realignment of our force structure in Europe. I know that our new SACEUR thinks the same way. As part of this review, let me ask you, is the Army considering bringing any force structure from Europe back to the United States?

General SHINSEKI. Senator, we await the analysis that General Jones is undertaking at this point. What we have always said is a clear strategy is the best route to that long-term stationing set of decisions, and we think General Jones's insights will be helpful here. If the answer is to bring forces home, we will do that. If it is to keep what we have there, albeit in different configurations and locations, we are prepared to support that as well.

Senator ROBERTS. I thank you very much.

My time has expired, Mr. Chairman.

Senator LEVIN. Mr. Chairman, could I just have 10 seconds for the record there. Just so that I do not mislead anybody, my statement has been consistently that whether or not I would support that lease will depend upon the numbers and the facts as provided to us. I have been one that is more than willing to look at that as an option, but I just do not want to mislead my good friend from Kansas by my silence.

Senator ROBERTS. If the Senator would yield, I will be happy to be a blocking back for him any time on this decision, and we will just let you carry the ball, sir.

Senator LEVIN. Thank you.

Chairman WARNER. Members of the committee, it is now the completion of the first round. We have had an excellent hearing this morning and the attendance has been at an all-time high, showing the concern of our members.

It is the intention of the chair, in consultation with my ranking member, to go into a closed session now. But the ranking member does have a prior commitment which requires his asking one or two questions now before the closed session, and I am happy to accommodate him.

Senator LEVIN. Thank you very much, Mr. Chairman.

I want to just ask General Shinseki about his reference to the missile defense system. I believe Senator Allard raised this issue. On January 2, Secretary Rumsfeld established some new procedures for the development and oversight of missile defense programs. This is what the memo said, "The Secretary of Defense will decide whether to use test assets for emergency or contingency deployment based on an assessment of military utility, progress in development, and recommendation by the Director of MDA and military Services."

The President has now decided to deploy a national missile defense system in 2004 and the Department of Defense has asked to waive the legal requirement for independent operational testing of this system prior to deployment. I understand, General Shinseki, that the Army is going to be asked to operate this national missile defense system starting in 2004.

Here is my question: have you provided an assessment of the military utility of the national missile defense system to be deployed in 2004?

General SHINSEKI. I do not recall providing personally a specific recommendation of that sort.

Senator LEVIN. All right. Will you check your records and if there has been such an assessment, would you share that with this committee?

General SHINSEKI. I will do that, Senator.

Senator LEVIN. Prior to the decision to deploy, did Secretary Rumsfeld ask you for advice regarding the military utility of the national missile defense system as it would exist in 2004?

General SHINSEKI. I am not aware of that request.

Senator LEVIN. Thank you.

Thank you, Mr. Chairman.

Chairman WARNER. That concludes your questions?

Senator LEVIN. May I just have one question of General Jumper? It has to get to this issue of the Predators. We were out there. We have seen the value of the Predators just in so many places now, most recently where we visited in the last week. Is there any way of increasing the production from over three a month?

The demand on these assets is huge. Their value is extreme. They can make a huge difference. Everybody wants them, but we need them in that theater I guess as much as anyplace. What efforts have been made to increase, get a new production line going somewhere else, get a license agreement going out?

General JUMPER. Sir, there are several mitigating features of the Predator. First, it was an advanced concept technology demonstration (ACTD), that is, that was handed to the Service. In that technology demonstration it took one ground station to fly one Predator. One of the things we are trying to do in the development is figure out how to fly several airplanes from one ground station. Until we get that problem solved, there is really no use in upping the numbers of productions because we are ground station-limited in the number of airplanes that we can put up at any one time.

We are working hard to solve this problem and once we do and once we get the Predator B model under contract, then we are going to have to decide if we want to shift all to B models or have a mix of As and Bs. We have decided already we are going to buy 128 of these things, if that is the force structure that we need, and I think the program we are in right now will answer a bunch of very important questions before we make a decision about whether to open another production line or not.

But we will keep you close to that, Senator, because it is a concern of ours as well.

Senator LEVIN. Thank you.

Thank you, Mr. Chairman.

Chairman WARNER. I join my colleague's view about that. We went to certain sites on our trip. I think we are going to have to revisit your current objectives and perhaps have Congress inject itself in that decisionmaking, because the dependence on this system, not only by the military—you know of other segments of our Government that are drawing down those assets, and the remarkable performance to date and the versatility of this system, it just extrapolates into saving lives of the men and women of the Armed Forces and others involved in this system. So shall we conclude saying that the attention of Congress is at full span on this.

General JUMPER. Absolutely, sir.

Chairman WARNER. We are there to support you.

General JUMPER. I understand and I appreciate that very much, Mr. Chairman.

Chairman WARNER. Thank you.

Yes, go ahead.

Senator LEVIN. Mr. Chairman, you very kindly have requested certain information from the CIA at our last meeting relative to suspect site numbers. There was a very strong disagreement here between myself and Mr. Tenet relative to what had been supplied to the U.N. and the chairman was very much involved in a number of conversations in this regard, as were Senator Roberts and others.

The record is clear that this is a significant issue about which some of the statements made by the CIA in letters to me were in my judgment significantly different from some of the statements that Director Tenet made before this committee and the Intelligence Committee. In an effort to amplify or clarify that issue, I believe that the chairman had indicated that he had requested the CIA for a letter at our last meeting, which I believe was the 13th of February.

But I just wanted for the record to determine whether or not such a letter has been received?

Chairman WARNER. I wish to advise my colleague and other members of the committee that that letter has not been received. But in the context of my requesting in an open hearing of the Director of the CIA for such letter, I indicated my own judgment, having reviewed I think almost all the facts that you had before you with the exception of your important visit to meet with Hans Blix. It was my judgment that the administration had in good faith provided on a real-time basis as much information as it possessed that was relevant to the inspections.

But you are correct, the letter which I requested has not yet been received.

Senator LEVIN. I had set forth on the record the discrepancies, not in numbers but in terms of overall rank of percentage that was very significantly different in terms of what the classified information was supplied to me and the representations of the Director at the Intelligence Committee and before this committee.

It is a very important issue. I think it is very important that the CIA carry out not just its commitment to the chairman that they supply a letter in this regard, but, frankly, a number of commitments that it has made to me that it has not carried out in terms of written updates, and a letter to Mr. Tenet will be going from me relative to those commitments this afternoon.

But I want to thank the chair for this bringing us up-to-date on that letter, which was not yet forthcoming from the CIA to him. Thank you, Mr. Chairman.

Chairman WARNER. At this time the open portion of this hearing is concluded. But again, I wish to commend our four distinguished witnesses for an excellent hearing, and I thank my colleagues who turned out in strong numbers to receive this important testimony today and ask questions.

[Questions for the record with answers supplied follow:]

QUESTIONS SUBMITTED BY SENATOR JOHN WARNER

SHIPBUILDING FUNDING ALTERNATIVES

1. Senator WARNER. Admiral Clark, in reviewing the budget request, it appears that the first ship for two classes of ships, the Littoral Combat Ship (LCS) and the DD(X) destroyer, will be funded with research, development, test, and evaluation (RDT&E) funds. However the first aircraft carrier of a new class, the CVN–21, is to be funded from the shipbuilding account, split over fiscal years 2007 and 2008. Why is it that the first ships of two classes were funded with RDT&E funds, but the CVN–21 was not?

Admiral CLARK. In the case of LCS and DD(X), both new hull designs with multiple transformational technologies, the use of RDT&E for the lead ships will aid in stabilizing these new construction programs through better management of the inherently higher risks. Furthermore, yearly review of RDT&E budgets will improve the fidelity in the execution year budget requirement and allow flexibility to adjust

out year budgets if critical technologies are delayed or require additional maturation. While CVN–21 will also incorporate transformational technologies, the hull form will be similar to current proven carrier designs, thus incurring less risk in ship construction than LCS and DD(X). As such, funding CVN–21 in SCN is appropriate.

LITTORAL COMBAT SHIP

2. Senator WARNER. Admiral Clark, last month the Naval Warfare Development Command published the Concept of Operations for the LCS, in which it stated: the LCS will contribute to Sea Shield through its unique capability to respond quickly, to operate in the littoral environment, and to conduct focused missions with a variety of networked off board systems. The budget request calls for the first of these ships to be purchased with RDT&E funds in fiscal year 2005, even though it appears the requirement has not yet been finalized. What is your vision for the LCS? How will it contribute to the overall effectiveness of the fleet?

Admiral CLARK. My vision for the LCS is a networked, fast, stealthy, shallow draft vessel designed to gain and sustain our access to the littoral to enable the flow of Joint Forces ashore. LCS will use a system of systems approach, employing networked sensors, modular mission payloads, and a variety of unmanned vehicles. It will have robust self-defense capability at its core and an open computing architecture that will enable the modularity we seek.

Key to LCS's capability will be the use of mission modules which will allow LCS to perform a specific mission such as anti-submarine warfare, mine warfare, or anti-surface warfare. Furthermore, these modules will be forward staged and capable of being rapidly installed, enabling LCS to be quickly modified to change missions as operational priority dictates.

LCS will assure the Joint Forces access to contested littorals, and will defeat the anti-access strategies any potential adversary may employ. Equally important, the mission-tailored LCS permits our large, multi-mission combatant ships to conduct those missions for which they were optimally designed, such as ballistic missile defense, area air defense, and naval surface fire support to our marines and other Joint Forces ashore.

3. Senator WARNER. Admiral Clark, how much additional funding would be required in fiscal year 2004 to accelerate the development of this ship?

Admiral CLARK. An additional $35 million in fiscal year 2004 would reduce risk in development of anti-submarine, anti-surface, and mine hunting mission modules for Flight 0 of the LCS.

QUESTIONS SUBMITTED BY SENATOR JOHN MCCAIN

RESERVE COMPONENT

4. Senator MCCAIN. General Shinseki, Admiral Clark, General Hagee, and General Jumper, I continue to be impressed with the greater role that our Reserve component service members play in our National Military Strategy. For example, General Shinseki's statement that "today, more than 50 percent of our soldiers are in the Reserve component." General Jumper's statement that "Air Reserve Component Forces comprise nearly half of the forces assigned to the Air and Space Expeditionary Force squadrons, groups, wings, and contribute the majority of forces for some mission areas." Even the Navy, which traditionally has a much smaller Reserve Force, is making history. According to press accounts, "A group of naval reservists from Texas and Arizona are making history on the deck of the U.S.S. *Theodore Roosevelt* (CVN–71). For the first time since the Korean War, an entire Naval Air Reserve Squadron has been deployed aboard an aircraft carrier, Strike Fighter Squadron (VFA) 201 flying F/A–18s." Admiral Clark, I am sure you are receiving the same reports I am. VFA–201 has the best sortie completion rate—100 percent, best carrier landing boarding rate, day/night landing grades and readiness, and during COMPUTEX scored 100 percent on missile and bomb drops.

Please explain how the fiscal year 2004 Defense budget provides adequate training and modernization funds for Reserves so you can continue to rely on them over a sustained period of time, in modern equipment like VFA–201 has?

General SHINSEKI. The fiscal year 2004 Defense budget provides adequate training dollars; however, the Army lacks adequate modernization/equipment funding for the Reserve components. With support from Congress, we have made great strides in improving the training dollars for the Army National Guard and Army Reserve.

Admiral CLARK. Navy formally reviews Naval Reserve modernization requirements as a part of its resource allocation process. As a result of that assessment, the validity and priority of those requirements are judged in the context of all other Navy and Naval Reserve modernization requirements.

I am pleased to report that the fiscal year 2004 Defense budget funded Naval Reserve modernization accounts at a higher level than Defense budgets of the past 3 years (fiscal year 2004 is approximately $32 million higher than fiscal year 2003). The fiscal year 2004 budget continues modernization of the Naval Reserve Air Fleet by providing funds to procure an additional C–40A "Clipper" aircraft. The C–40 is a derivative of the Boeing 727 and is replacing the aging fleet of C–9 logistics aircraft. Additionally, the Flying Hour Program is funded to meet 100 percent of the notional training requirement for Reserve pilots. The increased operating and modernization funds have been targeted to sustain a level of Reserve participation in Navy operations that are essential for us to continue to project influence throughout the globe.

As always, there have been some reductions and some increases in the individual procurement accounts that reflect the changing priorities of a transforming Navy undergoing recapitalization. A good example of this is the integration of Navy and Marine Corps tactical aviation forces that tailors future force structure in recognition of increased capability of the airframes and munitions. One outgrowth of this restructuring was the disestablishment of a Naval Reserve and a Marine Corps Reserve Fighter/Attack squadron in the fiscal year 2004 Defense budget request.

The decisions reflected in the budget demonstrate Navy's intent to invest in those priorities, to the extent it is affordable. Unfortunately, there are also always high-priority requirements that could not be funded. Within constrained top-lines, lower priority requirements—both active and Reserve—will not be funded. Those that cannot be funded are considered for inclusion in Navy's list of high-priority unfunded programs, a copy of which is made available to Congress. Historically, Congress has aided Reserve Modernization through the National Guard and Reserve Equipment Appropriation (NGREA). Dramatic decreases in NGREA have had an impact on Reserve modernization.

General HAGEE. The Marine Corps has built an efficient and effective Total Force. Maintaining our expeditionary readiness depends upon high-quality Marine reservists as a key part of our Total Force. Their training, leadership, quality of life, and equipment modernization will continue to be of the utmost importance.

The fiscal year 2004 Defense budget request provides funding in the Operations and Maintenance, Marine Corps Reserve (O&MMCR) and Reserve Personnel Marine Corps (RPMC) appropriations that will adequately support the training requirements of Marine Forces Reserve (MARFORRES) units and personnel. In fiscal year 2004, MARFORRES units are scheduled to conduct live-fire exercises and participate in amphibious, desert, jungle, mountain, and cold weather training. Fiscal year 2004 funding will support individual and unit participation in Total Force exercises such as: Combined Arms Exercise and Desert Scimitar in Twentynine Palms, CA; Weapons and Tactics Instructor course in Yuma, AZ; Ulchi Focus Lens in Korea; Cobra Gold in Thailand; Kernal Blitz in CA; Rolling Thunder in Fort Bragg, NC; and UNITAS in South American countries. These exercises provide operational tempo (OPTEMPO) relief to the active component and provide increased opportunities for reservists to support the Total Force effort throughout the world. However, the execution of these exercises, rely heavily on robust OMMCR appropriations and RPMC Active Duty Special Work (ADSW) budgets.

One of the Marine Corps pillars of readiness focuses on ongoing modernization initiatives. The Marine Corps makes every effort to resource the Reserve component at levels similar to the active component. This effort gives the Reserve Forces the ability to fully integrate into the Total Force, especially during periods of mobilization when augmenting and reinforcing the active component in sustained combat operations. The fiscal year 2004 Defense budget provides funding for a series of incremental and affordable modernization efforts for our legacy systems including: upgrades to aviation systems (CH–46E, CH–53E, C–130T, and F/A–18A) and ground systems such as the Amphibious Assault Vehicle Product. Improvement Program; and new procurements of ground systems (Thermal Weapons Site, the Lightweight 155 Towed Howitzer, and the High Mobility Artillery Rocket System (HIMARS)).

General JUMPER. The President's budget request for fiscal year 2004 and the out years provide the resources for the Air Force Reserve Command to undertake one of the biggest aircraft modernizations in the past 2 decades, after the procurement hiatus in the 1990s. Force structure associated with the C–141 will be realigned to support newly built C–17 Globemaster IIIs, C–5As, and KC–135s. C–5 B-models will be added to the AFRC fleet. The upgraded KC–135R air refueling tanker will replace the last of AFRC's KC–135 E-models. The oldest C–130Es in the fleet will be

replaced by newer more capable H-model C–130s and newly built C–130J aircraft. The fiscal year 2004 President's budget provides a much needed jumpstart to the Air Force Reserve equipment modernization program, ensuring that the Air Force Reserve remains a robust and capable partner in the Total Force team.

Additionally, the budget covers the cost of training Air Force Reserve personnel that have been called on in great numbers to participate in Operation Enduring Freedom, Operation Noble Eagle, and Operation Iraqi Freedom. Participation levels have risen sharply since September 11, 2001, further increasing pressure on available training dollars. The Air Force Reserve continues to make great strides in efficient resource management by outsourcing support jobs and partnering with the active component to maximize long-term combat capability through the rebalancing of the Active/Reserve Force mix.

5. Senator MCCAIN. General Shinseki, Admiral Clark, General Hagee, and General Jumper, what antiquated Reserve policies still exist in statute that you would like us to change that negatively affect the way you do business today? By incorporating Reserves in an even greater effort into the Total Force?

General SHINSEKI. There are several ongoing studies by the General Accounting Office, the Wexford Group, the Army Staff, and others that are looking into issues like active component/Reserve component program, compensation reform, duty statuses, etc. The Army and the Department of Defense will be studying the recommendations with great interest and will alert Congress to any recommended policy changes that require legislative action.

Admiral CLARK. It would be premature to request a statutory change prior to completion of the Department's studies on Total Force integration and the mobilization/force deployment process.

That said, we have made modifications to our internal policies and coordinated changes to Department of Defense policies to improve Reserve integration. These changes include the minimization of second-year involuntary recalls, implementation of a narrowly focused active and Reserve stop-loss policy (in effect for 5 weeks, affecting fewer than 100 sailors), and implementation of the Navy-Marine Corps Mobilization Processing System (NMCMPS), which provides web-based requirements, sourcing, and processing.

General HAGEE. First, the Marine Corps Reserve is an integral part of the Marine Corps Total Force concept. Our Selective Marine Corps Reserve Units are a mirror image of our active component units allowing them to quickly integrate into our active component fulfilling their traditional roles of augmenting and reinforcing Marine Expeditionary Forces. Second, there are currently no statutory restrictions that negatively impact the Marine Corps Reserve's ability to support the total force. However, legislative assistance in the following areas will allow the Marine Corps to provide a greater level of continuous support to the Total Force.

- *Montgomery GI Bill (MGIB–SR)—Selected Reserve Benefits Obligation Period Reduction.* This would modify the eligibility criteria to "not less than 4 years" in order to allow the Services the option of offering MGIB–SR benefits to recruits incurring a 4x4 contractual obligation in addition to the obligation period of "not less than 6 years" required for MGIB–SR benefits. This would increase the potential pool of SMCR recruits.
- *Consistency in Reserve Strength Accounting and Management.* This proposal would revise Title 10, U.S.C. Section 115 exempting Reserve personnel serving on active duty for 180 days or more from counting against active duty end strength. Approval of this change would ensure that a Reserve member who is exempt from counting against active duty end strength would also be exempt from counting against active duty grade strength and would be exempt from inclusion on the active duty list. This revision would likely remove barriers to Reserve component participation and greatly enhance our flexibility in employing reservists in support of operational requirements.
- *Limitation of Initial Payment of Enlistment and Reenlistment Bonuses for the Selected Reserve.* Currently, Title 37 limits the initial payment of these bonuses to one-half of the total value. By increasing the initial payment amounts, the recruiting and retention value of these bonuses would be greatly enhanced and increase SMCR recruiting and retention efforts.

General JUMPER. A number of proposals have been included in the DOD Omnibus submission to Congress, or are being submitted through the fiscal year 2005 Unified Legislation and Budgeting cycle, to align Reserve policies with the new steady state. We have always worked as a team in the Air Force and will continue to set the

standards for Total Force commitment through discussion of these current initiatives and those that may arise at a future date, to include the following:

- Extending Hostile Fire and Imminent Danger Pay to Reserve component Members on Inactive Duty
- Position Vacancy (Below the Zone) Promotion Consideration in Time of War or National Emergency
- Military Leave for Mobilized Federal Civilian Employees
- Streamline the process to continue Officers on the Reserve Active Status List

PAY

6. Senator MCCAIN. General Shinseki, Admiral Clark, General Hagee, and General Jumper, I am looking at the pay tables here. In 2000, the law prescribed military pay raises to be ECI plus 0.5 percent. According to the tables, E–1s to E–3s will receive a 2-percent pay raise. Is that enough?

General SHINSEKI. Since fiscal year 2000, military pay has improved substantially relative to the 70th percentile benchmarks recommended by the 9th Quadrennial Review of Military Compensation for junior officers and junior enlisted personnel. Only the most junior enlisted personnel and officers would receive less than 3.7 percent or Employment Cost Index (ECI) plus 0.5 percent. E–1s would receive 2 percent while E–2s would receive 3.2 percent. It should be noted, however, that these pay grades are transitional-members are in them for a short time. Their pay is now close to the 90th percentile while pay for mid-grade and senior noncommissioned officers is still below our target. We continue to support military pay raises of ECI +0.5 percent; however, we believe it is appropriate to redistribute the pay raise—putting more pay where it is needed while being assured that entry-level pay is very competitive.

Admiral CLARK. I believe that it is enough for E–1s. We have proposed a 3.2-percent raise for E–2s and E–3s. That said, when we request targeted pay raises, we do so with one principal objective in mind: provide incentive in a competitive work force. We expect our E–1 to E–3 personnel to move quickly through those pay grades and on to positions of leadership at the petty officer level. I remain convinced that targeted pay raises in these leadership pay grades are a valuable motivator of performance in our most junior personnel.

General HAGEE. The 2 percent pay raise is focused on E–1s only. E–1s are automatically promoted to E–2 after 6 months of service, which is normally about the time they complete their MOS training and go to their first duty station. E–2s are scheduled for a 3.2-percent raise and E–3s are scheduled for a 3.7-percent raise. Congress instituted the ECI +0.5 percent to close the gap between military and comparable private sector pay and currently E–1s are at or near the 90th percentile.

General JUMPER. The proposed pay raise, if approved, will increase E–1 pay by 2 percent. This is approximate to the increase in inflation. Personnel in grades of E–2 will receive a pay raise equal to the ECI (3.2 percent) and E–3s will receive a 3.7-percent raise.

Our junior enlisted personnel entering the Service in the grades of E–1/E–2 are in the transition phase of their career. An E–1 will advance to the grade of E–2 once they reach 6 months time-in-grade (TIG). An E–2 will advance to E–3 when reaching 10 months TIG. Upon completion of basic training and tech school, most airmen will already have advanced to the grade of E–3.

The proposed raise continues our efforts of previous years to reduce the disparity between military pay and private sector, which contributes to quality force retention. Additional targeting will also result from a redistribution of the pay raises. Our most junior members' compensation is now close to the 90th percentile of comparable civilians while pay for Senior NCOs is still below the 70th percentile target. We believe it is appropriate to redistribute the pay raise—putting more pay where it is needed while ensuring the entry-level pay remains very competitive.

7. Senator MCCAIN. General Shinseki, Admiral Clark, General Hagee, and General Jumper, what is the projected pay raise for general and flag officers?

General SHINSEKI. The projected pay raise for general officers for 2004 is 3.7 percent, ECI plus 0.5 percent; however, general officer pay is capped at Executive Schedule Level III, which is currently $142,500.

Admiral CLARK. The projected 2004 pay raise for flag officers in the pay grades of O–7 through O–9 is 3.7 percent, which equates to the by law increase of ECI plus 0.5 percent. The statutory requirement that caps flag officer pay at the equivalent

rate for level III of the Executive Schedule is expected to result in no increase in basic pay for officers in the pay grade of O–10.

General HAGEE. The projected pay raise for O–7 through O–10 general and flag officers is 3.7 percent (ECI0 +0.5 percent).

General JUMPER. Their projected fiscal year 2004 pay raise is 3.7 percent. Unless overt action is taken, the four-star pay will remain capped, which may create a situation in which there is virtually no difference in three- and four-star pay.

Currently:

- 3-star base pay: $11,319.60
- 4-star base pay: $11,874.90 (capped)

Projected:

- 3-star base pay with 3.7 percent increase: $11,738.40
- 4-star base pay: $11,874.90 (capped)

8. Senator MCCAIN. General Shinseki, Admiral Clark, General Hagee, and General Jumper, if it is enough for E–1s, then is it enough for generals and admirals?

General SHINSEKI. The projected pay raise for all our career noncommissioned officers and commissioned officers is 3.7 percent, ECI +0.5 percent, in recognition of their commitment to service and associated responsibilities commensurate with their grade. E–1 pay is now close to the 90th percentile relative to their civilian counterparts based on experience and education. Additionally, E–1s are only in this pay grade for a very short period of time.

Admiral CLARK. We are trying to retain the best people in the Navy, from E–1 to O–10. To do that, my folks need to have not only superior job content and quality of service, but they need a pay system that produces powerful incentives for promotion and retention.

Right now, Navy flag officers are paid at or near the 70th percentile of comparably educated civilians, a level determined by the 9th Quadrennial Review of Military Compensation (QRMC) as necessary to enable the military to recruit and retain the quantity and quality of personnel it requires. By contrast, personnel in pay grade E–1 are currently at the 90th percentile. Accordingly, I believe that the 3.7-percent pay raise (Employment Cost Index +0.5 percent), provided for in 37 U.S.C. § 1009, is appropriate to maintain flag and general officer pay at a level consistent with their responsibilities, while a 2 percent raise for E–1s will help maintain their purchasing power, similar to or above that of their civilian counterparts.

General HAGEE. Congress instituted the ECI +0.5 pay raise to close the gap between military pay and comparable private sector pay. After considering the relative value of military compensation against the private sector wages by age, education level, and experience, DOD targeted the pay raise to more aggressively close the gap between NCOs/SNCOs and their private sector counterparts. All enlisted personnel E–3 and above will receive a 3.7-percent pay raise or more, consistent with properly targeting the pay raise to bring them closer to the recommended 70th percentile of their civilian counterparts. Similarly, all officers, except second and first lieutenants with no prior enlisted service, to include general officers, will receive a 3.7-percent pay raise consistent with the 9th QRMC review. These officers will receive a 3.2-percent pay raise keeping them above the 70th percentile.

General JUMPER. In line with the 9th QRMC, DOD is targeting pay increases for our mid-level to senior enlisted personnel ranging from 4.6 percent to 6.25 percent. Pay for E–1s will increase 2 percent, approximately equal to the increase in inflation. A 2-percent pay raise will maintain the purchasing power of E–1 pay and will maintain their compensation close to the 90th percentile of comparable civilians (recent high school/college graduates). E–2s and O–1/O–2s will receive a 3.2-percent pay raise, which is equal to the ECI. All others will receive 3.7 percent to include generals and admirals. A 3.7-percent increase for general officers will slightly improve their purchasing power and maintain their compensation close to that of CEOs leading small companies (revenue under $2 million/year).*

9. Senator MCCAIN. General Shinseki, Admiral Clark, General Hagee, and General Jumper, what effect will this have on those E–1s on the lower end of the pay scale with respect to getting the last of our military personnel off of food stamps, or will we backslide and be putting personnel back on food stamps?

General SHINSEKI. There has been a steady and noteworthy decline in the number of members on food stamps since the first survey of participants in 1991. In 1991, there were 19,400 members on food stamps among all Services. Today, the Depart-

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* Source: Executive Compensation, June 2001

ment of Defense estimates that there are 2,000 members on food stamps—we estimate that 1,155 are soldiers. The decrease in food stamp participation is primarily due to increases in military base pay, basic allowance for housing and subsistence, and implementation of the Family Subsistence Supplemental Allowance (FSSA). Eligibility for FSSA is based on USDA criteria for food stamps, except income for FSSA purposes, includes the value of government quarters. The USDA does not count the value of government quarters in determining eligibility. We know the majority of soldiers on food stamps live on-base, approximately 60 percent. However, since the FSSA requires the soldiers to count their housing as income, these soldiers are not eligible for FSSA and continue to receive food stamps. The majority of FSSA participants for the Army range from E–3s to E–5s. The proposed pay raise provides a raise equivalent to the employment cost index to E–2s and the employment cost index plus 0.5 percent to E–3s and E–4s. We do not believe the proposed 2 percent pay raise for E–1s will impact food stamp usage.

Admiral CLARK. As of the end of fiscal year 2002, there were 23 Navy E–1s on food stamps, or 0.03 percent of the Navy E–1 population. While that is still 23 too many, we expect that the proposed 2 percent basic pay raise for E–1s in 2004, as well as the increases in basic allowance for housing (BAH) associated with the continued buy down of out-of-pocket expenses, will continue to drive that number down.

General HAGEE. The food stamp program is administered by the States and, therefore, the USMC does not have access to this data. The NDAA 00 established a family subsistence allowance to help military families. The maximum amount of FSSA is $500/month and is paid based on family size and household income based guidelines as determined by the Department of Agriculture. During 2002, we paid out $78,000 in FSSA to 48 marines. Only one was an E–1, with the majority of the recipients being E–3 and above with large families. We believe that the continuing raises in basic pay and reduction of BAH out-of-pocket expenses will reduce the number of marines participating in FSSA.

General JUMPER. Military pay for our airmen in the grades of E–1/E–2 attending basic training and technical school is relatively high compared to their private sector counterparts so we do not consider the projected pay raise for E–1/E–2s to be a problem. In fact, airmen enter the Air Force earning basic pay already close to 90 percent of their civilian counterparts with the same education and experience background. Additionally, airmen, depending on their specialty skill, may be eligible for a variety of separate pays, allowances, and bonuses in addition to the tax advantages they receive for nontaxable income.

Since the Services implemented the FSSA program in 2001, only 15 AF active duty personnel are currently certified to receive FSSA. To qualify for FSSA, an airmen's household income level must be less than the USDA Food Stamp Program (130th of poverty level). FSSA is a voluntary monthly tax-free cash allowance (up to $500/month) paid to a member and must be reported as income to all federally-funded income assistance programs (School Lunch Program; Women, Infant, and Children (WIC); and Food Stamps: Earned Income Tax Credit). In February each year, members must recertify for FSSA to show that their income is below the USDA Food Stamp Program eligibility level. In 2002, 27 members qualified for FSSA. FSSA eligibility will fluctuate throughout the year as a result of changes in the member's income level (promotions, annual pay raises, special/incentive pays and bonuses, or other household income). While it is difficult to determine exactly how the number of personnel certified/qualified for FSSA will increase or decrease, the pay raises proposed will certainly be a step in the right direction toward reducing such numbers.

Of the 15 families currently receiving FSSA, there are 7 E–3s with 5–6 members in household, 2 E–4s with 6–7 members in household, and 6 in the grades of E–5 and E–6 with 8–11 members in household. Average FSSA amount paid to eligible members is $308 per month. There are no members below the grade of E–3 currently receiving FSSA.

END STRENGTH

10. Senator MCCAIN. General Shinseki, Admiral Clark, General Hagee, and General Jumper, last year, I supported a legislative proposal with my friend Senator Max Cleland, which called for an increase in end strength based on your personnel requirements. The Army reported to the committee that they may need 42,000 to 43,000 additional soldiers, the Air Force 22,000 to 30,000 additional airmen, the Navy 10,000 additional sailors, and the Marine Corps an additional 5,000 marines.

You and your personnel chiefs were quite clear that the requirement was driven by the war on terrorism and operations after September 11. The first 100,000 Re-

serve and national guardsmen that you called up for Operations Noble Eagle and Enduring Freedom have just returned home. We are engaged all over the world. Our men and women in uniform may be asked to do more this year than last.

How do you propose to manage an even lower military end strength with increased requirements for more personnel in even more places (i.e., homeland security, Afghanistan, Iraq, Korea, etc.)?

General SHINSEKI. While the congressionally-mandated fiscal year 2002 active Army end strength was 480,000, the Army exceeded this end strength target, as well as the budgeted average strength of 474,000 man-years. The Army finished fiscal year 2002 with an end strength of 486,543 (78,158 officers, 404,305 enlisted, and 4,080 cadets). The Army was allowed to exceed the end strength targets only because of the 2-percent flex authorized by Congress. The Army will continue to utilize this flex and continue to use Reserve component (RC) forces to meet current and emerging requirements for the global war on terrorism and the new strategic environment.

This is a complex question that has no simple answer. Looking at our history since September 11, we have had a 480,000 Active-Duty Force and a sustained force of 30,000 mobilized RC soldiers on active duty status. The Army views these requirements as a new operational plateau and not as a spike. The recent increase in mobilization of the RC is a spike for the potential war against Iraq and increased threat levels. But even after the immediate spike subsides, we see the Army's operational requirements maintaining a new plateau. This coming June, both the Stabilization Force (SFOR) in Bosnia and the Kosovo Force (KFOR) will become RC operations to mitigate active component (AC) tempo. This will require the mobilization of portions of an RC division for SFOR and portions of another RC division for KFOR to sustain the operations. During this period of mobilization, RC soldiers will be in an active duty status. These requirements are additive to the support the RC is already providing to Operation Enduring Freedom and Operation Noble Eagle to support homeland defense and the global war on terrorism. Any increase in end strength will be tied to how long we expect the RC to maintain that operations tempo. The Army continues to look at whether or not the 480,000 Active-Duty Force is right and whether we have the right AC/RC mix in our combat, combat support, and combat service support formations, as well as addressing our current high demand/low density units.

Admiral CLARK. Embedded in our military end strength projections are various platform decommissionings offset by increases in Antiterrorism/Force Protection manning. Accelerating the retirement of our oldest, least capable, and most maintenance-intensive platforms was one of the most difficult decisions the Navy made this year. While aggregate warfighting capability is a better metric than the number of ships and aircraft in our inventory, we recognize that below a certain threshold numbers do matter. However, all of our analyses suggest that the near-term inactivations we are proposing do not compromise our ability to accomplish our mission, and that the fastest and most efficient way to recapitalize and transform the fleet is to pursue vertical cuts in our least capable type-model series, both in ships and in aircraft, and apply those savings toward procuring new ships and aircraft.

In summary, Navy end strength is based on requirements that are largely force structure based. As older, more manpower intensive platforms are taken off line and replaced by more efficient ships and aircraft the requisite end strength decreases in concert.

General HAGEE. The Marine Corps asked for and was granted an end strength increase of 2,400 marines for fiscal year 2003. This increase was greatly appreciated and came at the right time. The 2,400 marines were used to replenish units depleted by standing up the 4th MEB (MEB Hqtrs/ AT Battalion/Chemical Biological Incident Response Force/Security Force Company). Coinciding with the end strength increase to 175,000, the USMC continues to look at ways to return marines to the operating forces. Military-civilian conversions, A–76, and outsourcing efforts have allowed us to return approximately 900 marines to the operating forces. We believe that 175,000 active component end strength is sufficient to meet our current mission requirements.

General JUMPER. We are examining opportunities to optimize use of the current end strength. We continue to look for those airmen doing things that uniformed people should not be doing, or those who are supporting agencies outside the Air Force that do not necessarily have to be military or Air Force resources. I would characterize this portion as a force and skills "mix" issue. Over the past year, we have been reviewing our core competencies—those things that we as an Air Force do better than anyone else, or things that we do that are very difficult for others to duplicate, as part of an ongoing effort to find areas where we can realign our military personnel from "non-military" jobs into those that must be military. These core com-

petencies will be implemented in a program we call the Human Capital Task Force, which will ensure our military force structure is placed in those functional areas with the highest demand and appropriateness for uniformed airmen. The remaining areas we've determined to not be core competencies, although essential, but not necessarily required to be performed by military members—will be studied as to whether this work can best be accomplished by our outstanding Federal civilian workforce or by outside contractors through competitive sourcing studies or an alternative to competitive sourcing. In addition, part of our long-term strategy is to overhaul our entire requirements determination process to better focus on core competencies.

Though we cannot definitively tell you we will not need additional end strength until we are confident we have our skills mix issue resolved, there is no doubt "solving" this issue will be very expensive. We are looking for creative ways to pay for the increase in contractor costs or an increase in civilian pay dollars to pay for the non-"blue-suit" work that is currently being performed by the military we will reassign.

NATIONAL CALL TO SERVICE PLAN

11. Senator MCCAIN. General Shinseki, Admiral Clark, General Hagee, and General Jumper, my staff was recently briefed on the implementation of the Call to Service Plan, which Senator Bayh and I were successful in including in the National Defense Authorization Act for Fiscal Year 2003. I thank the Marine Corps in particular for embracing the program in the commandant's statement. While I am encouraged by the new enthusiasm shown by the Department of Defense, compared to last year, I would like you to discuss how you plan to maintain this new level of effort to ensure this program is fully utilized. How do you intend to implement the 18–18–18 enlistment option approved last year?

General SHINSEKI. We are not participating in the 18–18–18 since it was replaced by the National Call to Service Enlistment Option. Participants in the National Service enlistment option, upon completion of initial entry training, will serve in the AC for a period of 15 months. They may then stay in the AC or choose to serve 24 months in the Selected Reserve. Upon completion, they may continue in the Selected Reserve, serve in the Individual Ready Reserve, or serve in a National Service Program, or any combination of the above. The Army will offer the incentives specified for the National Service option which includes the choice of one of the following: (1) payment of a bonus in the amount of $5,000; (2) up to $18,000 repayment on qualifying student loans; (3) entitlement to an allowance for educational assistance at the monthly rate payable for basic educational assistance allowances for a total of 12 months (now at $900 per month); or (4) entitlement to an allowance for educational assistance at 50 percent of the monthly rate payable for basic educational assistance allowances for a total of 36 months (now at $366 per month). Twenty-four military occupation specialties have been identified for participation in this program.

Admiral CLARK. Navy, in coordination with DOD and the other Services, is in the process of developing an implementation plan, which will take effect 01 October 2003 (fiscal year 2004). The overarching theme for Navy's implementation of the National Call to Service (NCS) enlistment option is to utilize the program to bolster our Selected Reserve (SELRES) force readiness. NCS candidates will be afforded the full range of active duty training, given fleet experience and then, if they choose not to reenlist in the Active Force, they will be transferred to our Selective Reserve Force as a readiness multiplier. Our plan for fiscal year 2004 will goal NCS accessions at 1 percent of total non-prior service accessions (¢450). Future annual accession goals, as well as the accession skill mix, will be directly tied to projected SELRES manning shortfalls.

General HAGEE. Marine Corps, in coordination with DOD and the other Services, is in the process of developing an implementation plan which will take effect 01 Oct 03 (fiscal year 2004). The overarching theme for USMC's implementation of the NCS enlistment option is to utilize the program to ultimately bolster our SELRES force readiness. NCS candidates will be afforded entry-level recruit and MOS training, given operating force experience and then, if they choose not to reenlist in the Active Force, they will be transferred to our Selective Reserve Force as a readiness multiplier. Our plans for fiscal year 2004 will set the goal for NCS accessions at approximately 0.5 percent of total non-prior service accessions (~175) ramping up to 1 percent by fiscal year 2006.

General JUMPER. Senator we also have embraced this program. Our strategy is to use this program to reach out to the market that may find this type of enlistment more attractive than traditional enlistments. We plan to reach out to individuals

currently in college or those completing it in the near future. Additionally, efforts are underway to ensure we maximize the output of this program to help improve the staffing in our Air Reserve components. Currently, we have identified at least 29 different skills across the Total Air Force that will be staffed with people that enter through the NCS program. These 29 skills were selected in large part because they are also utilized in the Reserve component and will allow members to transfer easily. These include security force positions, flight line positions, medical positions, and numerous others.

12. Senator MCCAIN. General Shinseki, Admiral Clark, General Hagee, and General Jumper, what percentage of your total force will be made up of personnel under this type of contract?

General SHINSEKI. We will begin with an initial cap of 2 percent of the annual accession mission. The percentage of the total force will initially be significantly less than 1 percent.

Admiral CLARK. Due to the short-term nature of the NCS contract (average length of time on active duty projected to be 20 months), and the Navy's vision of setting accession goals based on SELRES manning shortfall requirements, it is anticipated that the first cut will produce a steady state average of NCS contracts in the total enlisted force will be approximately 1 percent (~3,000–3,500 NCS contracts on active duty at any given time). We will evaluate progress in the future.

General HAGEE. Present plans call for USMC to access 0.5 percent (~175) in fiscal year 2004 and ramp up to 1 percent (350) of our annual enlisted accessions by fiscal year 2006.

General JUMPER. Senator our current plan is to enlist 1 percent (approximately 370 people), of our total non-prior service accessions in fiscal year 2004. We have identified at least 29 different skills across the Total Air Force that will be staffed with people that enter through the National Call to Service Program. The 1 percent will be divided across the 29 skills.

13. Senator MCCAIN. General Shinseki, Admiral Clark, General Hagee, and General Jumper, what role would the National Service Plan member fill in your Service? I would like to encourage you to come back to the committee and myself for further help in using this program to increase end strength.

General SHINSEKI. Participants who enlist for the 15-month term of service will attend the same training as those who enlist for a longer term of service in the same specialty. Specialties with a total training time of less than 16 weeks and facilitate Reserve duty or National Service will be open to this option. This enlistment option will be open to 24 military occupation specialties including combat, combat support, and combat service support. After training, participants in this option are subject to both overseas assignments, except Germany and Hawaii, and stateside assignments.

Admiral CLARK. While on active duty, NCS recruits will be utilized in the Navy to fulfill the same functions as recruits coming in under longer-term contracts. All NCS recruits will attend boot camp, a Navy "A" school, and will be worldwide assignable to sea and shore billets. At the completion of their active duty contract, they will be afforded the opportunity to either reenlist in the Active Force or transfer to the SELRES. While attached to the SELRES, NCS members will fill manning gaps in targeted ratings. The skill mix for NCS accessions will be directly linked to projected SELRES manning shortfalls.

General HAGEE. The ultimate goal for our NCS marines is to support the Selected Marine Corps Reserve (SMCR) in meeting manning shortfalls and support their emerging homeland security missions. A majority of the NCS marines would be tied to ATIFP missions and would be trained in infantry, NBC, and MP MOSs. Active duty would be spent serving with the 4th MEB (AT), Chemical Biological Incident Response Force (CBIRF), Marine Security Forces, and Base/Station MPs. Assignments in the SMCR would be tied to Security Battalions, CBIRF, and other units assigned to homeland security missions. We are also planning on offering a limited number of NCS marines extended training in critical skill areas in short MOSs (i.e. intelligence, linguists, aerial navigators, etc.) so that we can assign these NCS marines directly into these critically short billets within the SMCR.

General JUMPER. Senator, we have identified many different skills in which these members will be utilized. These skills stretch across the Air Force and can also be utilized in one of our Air Reserve components. Members enlisted under the National Service Plan are not in addition to, but will count against our current authorized end strength.

14. Senator MCCAIN. General Shinseki, Admiral Clark, General Hagee, and General Jumper, if you were authorized the increase in end strength required to meet your commitments, how quickly would you be able to fill out the ranks of currently undermanned units?

General SHINSEKI. Any increase in end strength will be tied to how long we expect the Reserve components to maintain their current operations tempo. The Army continues to look at whether or not the 480,000 Active-Duty Force is right and whether we have the right active component/Reserve component mix in our combat, combat support, and combat service support formations, as well as addressing our current high-demand/low-density units. Additionally, the Army derives end strength requirements from the Total Army Analysis (TAA) process, which currently is ongoing. The TAA and other efforts to move soldiers from supporting roles to units will affect the increase in end strength requirements.

Given current recruiting and retention resources, and current retention rates, the Army has the ability to increase end strength by approximately 7,700 in fiscal year 2004. An increase in resources or efficiencies will have a commensurate increase in the ability to increase the Army's end strength.

Admiral CLARK. As a result of congressional authority to operate above strength controls, yet within the NDAA authorization of +2 percent, Navy active-duty end strength levels are already sufficient.

General HAGEE. The Marine Corps is very satisfied with the NDAA for fiscal year 2003 increase of 2,400 marines. The Marine Corps believes that 175,000 active marines are sufficient to meet our traditional mission requirements. We are currently not experiencing any problems in recruiting, training, and retaining marines to meet this increase.

General JUMPER. It is difficult to provide a definitive answer, as there are several issues involved including the recruiting and training pipelines. In the ideal environment, it takes between 12 and 18 months to recruit and train additional personnel.

15. Senator MCCAIN. General Shinseki, Admiral Clark, General Hagee, and General Jumper, would you need to reactivate units and squadrons that were decommissioned during the down-sizing of the 1990s?

General SHINSEKI. No. Soldiers who enter the Army under this plan would be integrated into existing units.

Admiral CLARK. I foresee no need to re-commission units at this time. We are using the National Call to Service Plan to complement our Reserve Force and to meet Reserve requirements for trained junior personnel.

General HAGEE. A. Marine Corps force structure is based on the minimum manpower and equipment needed to provide required combat capabilities. Since the end of the Cold War, our requirements have increased while end strength has decreased. Specifically, since a recent high of over 191,000 in 1991, we now stand at 175,000 active duty marines. This is at a time when we find ourselves engaged in a major theater war as well as numerous other vital missions.

B. In recent years, with the help of a modest end strength increase, we have reactivated selective units in order to meet emergent threats and provide our regional combatant commanders with the capabilities they require. Our reactivation of the 4th Marine Expeditionary Brigade (Anti-Terrorism) and our active component Air Naval Gunfire Liaison Companies (ANGLICO) are examples.

C. Through a combination of specific force structure realignments and institutional process improvements, the Corps has enjoyed unprecedented efficiencies in manpower allocation. In spite of this, we currently are able to man our Active-Duty Forces at only 94 percent of their validated requirement. Given this shortage of manpower to meet our current requirements, and without presupposing another end strength increase, I do not believe it is prudent for us to seek reactivation of previously decommissioned units.

General JUMPER. At this time there are no plans to reactivate any units or squadrons inactivated during the downsizing of the 1990s. New squadrons would only be required if additional force structure or mission changes were directed. Additionally, end strength increases do not generate the need for additional squadrons. We are analyzing our force requirements to determine if there are opportunities to realign military manpower from non-military essential functions into high-stress, high-PERSTEMPO career fields within existing units. We would then backfill the losing functions with civilian manpower or contract support, depending on the availability of resources.

16. Senator MCCAIN. General Shinseki, Admiral Clark, General Hagee, and General Jumper, what increases in procurement would be required to ensure that these service members are properly equipped?

General SHINSEKI. None. Soldiers who enter the Army under this plan would be integrated into existing units, assigned to authorized unit positions, and utilize equipment authorized by the units. However, there may be some additional cost associated with the procurement of personal items such as initial uniform issue items that would be based upon the number of soldiers entering the Army under this program.

Admiral CLARK. Thus far, we have identified no additional procurement needs to facilitate implementation of Navy's NCS program, largely because the program will be operated within our existing strength authorization and NCS members will perform duties associated with existing requirements.

If, however, at some point, Navy leadership deems it necessary to activate previously decommissioned activities (ships, squadrons, bases, etc.), part of the consideration of such a decision will involve a detailed evaluation of the mission and structure of commands identified for reactivation, in order to determine procurement needs associated with their activation/reestablishment.

General HAGEE. This question is a follow-on to QFR #15 which asked, "Would you need to reactivate units and squadrons that were decommissioned during the downsizing of the 1990s?" The Marine Corps' response indicated that there was no need to reactivate any units or squadrons.

In light of the Marine Corps' response to QFR #15, this question is not applicable.

General JUMPER. We plan to enlist 1 percent (approximately 370) of our total nonprior service accessions in fiscal year 2004 through the NCS plan. As there is currently no increase in end strength associated with the NCS plan, the cost to equip these members is included in the budget.

CONCURRENT RECEIPT

17. Senator MCCAIN. General Shinseki, Admiral Clark, General Hagee, and General Jumper, I am on record as a strong supporter of concurrent receipt since 1991. I believe military retirement pay is pay for services rendered to a serviceman or woman after 20 years of dedicated military service. Disability pay is pay to a serviceman or woman because of physical or mental pain or suffering caused by their years of service in the military. The pays are different. The pays are separate. Military retirement pay should not be offset by disability pay. The Fiscal Year 2003 National Defense Authorization Act on "Special Compensation for Combat-Related Disabled Uniformed Services Retirees" addressed only a small portion of retired service members not being fairly compensated for their service to this country and disabilities acquired during that service. Senator Harry Reid and I have re-introduced legislation to ensure that all service members are fairly compensated. What are your views on this legislation and this issue?

General SHINSEKI. Of course, the Army is most grateful to our veterans, especially those who have served long and faithful careers. We realize that there is no payment that can ever fully repay these brave soldiers for the sacrifices they have made. However, we must temper this emotionally charged issue with the position of the Office of the Secretary of Defense, which the Army supports. We cannot pay anyone twice—that is, both retired pay and disability pay—for the same service. Further, we must keep in mind our obligation to those who are serving now and may be putting their lives on the line in combat in the weeks and months ahead. Would we be able to support these troops after paying the $45 billion, 10-year cost for concurrent receipt that DOD estimates?

The Army is grateful to the President for signing "Combat Related Special Compensation" into law. This new law will compensate military retirees who served 20 years and were wounded in combat or combat-related training. The Army is part of a DOD committee working together to develop guidelines for executing this compensation program by June.

Admiral CLARK. Like all Americans, I believe we owe our veterans a great debt of gratitude, particularly those serving long and faithful careers. We must always remember that our Nation has remained strong because of the brave men and women who were willing to fight and risk their lives to protect their fellow citizens. However, we must also recognize the significant obligation this bill will place on the Military Retirement Fund without identifying appropriations.

I cannot support concurrent receipt of retired pay and disability compensation that goes into effect prior to appropriation of funds to cover the cost to the Military Retirement Fund and manpower and personnel accounts. To do otherwise would put other critical programs at risk.

General HAGEE. The Marine Corps has always supported fair and equitable treatment of retired marines and acknowledges that the issue of concurrent receipt needs

to be fully addressed. The NDAA fiscal year 2003 provides special compensation for military retirees with combat-related disabilities (CRSC). Though this is not concurrent receipt, we believe that this is an important first step. The Marine Corps' major concern lies with the appropriation of additional funding to support any legislative change concerning concurrent receipt. Compelling the Services to pay the bill out of existing funds would result in serious cuts in modernization and readiness, as well as potential cuts in current programs to our active and Reserve marines.

General JUMPER. Senator McCain, the Department has traditionally opposed legislative attempts to repeal the ban on concurrent receipt of full retired pay and VA disability compensation. This opposition is based on 100+ years of historical precedent, and a longstanding administration belief against "duplicate payments" for same period of service. However, we recognize the importance of properly compensating veterans for service injuries, and that there are two competing viewpoints on whether concurrent receipt is justified.

Proponents of retaining the ban argue that offsets are common to other Federal payments (for example, Dependency and Indemnity Compensation offsets the Survivor Benefit Plan annuity). Ending this offset would set an expensive precedent for reduction/elimination of similar offsets among Federal programs. OSD reports a rough cost estimate of $41 billion in increased direct spending for the first 10-year period if the ban on concurrent receipt were lifted ($3 billion in the first year alone, and $14 billion in increased accrual payments by DOD to the military retirement trust fund for the same 10-year period). Also, retired or "retainer pay" implies possible future service, and since a disabled retiree is not fit for recall, offset is appropriate.

Proponents of repealing the ban argue the offset is unfair. Civil service retirees and prior service retirees typically are able to receive disability compensation from VA with no corresponding offset (though no other agency provides for disability and retirement pay from that agency). Another argument is that VA disability recipients are entitled to other Federal benefits, so why not military retired pay? As an alternative to "full" concurrent receipt, OSD estimates the ban could be lifted for 100 percent disabled retirees at a much-reduced cost of $50 million/year. The Air Force has not budgeted for this item in the fiscal year 2004 President's budget and cannot absorb or support the significant costs without additional funding. If additional funding were provided by Congress to cover the cost of lifting the ban, we would support such legislation.

ENCROACHMENT

18. Senator MCCAIN. General Shinseki, Admiral Clark, General Hagee, and General Jumper, the loss of Vieques, and the increasing impact of encroachment on operations and training at bases and ranges, concern me greatly. We passed legislation last year that will help to reduce some encroachment concerns at Nellis Air Force Base (AFB) and to a smaller degree at Luke AFB, but there is much more to be done. Please discuss what actions your Services are taking to protect the viability of military ranges and bases, especially against encroachment.

General SHINSEKI. The Army is working internally and with other agencies to mitigate the effects that encroachment has on our training and readiness. Our principal internal effort is the Sustainable Range Program (SRP). The objective of SRP is to maximize the capability, availability, and accessibility of ranges and training land to support doctrinal training and testing requirements. SRP is based on three tenets:

(1) Scientifically Defensible Information. The Army is developing and maintaining complete data on all aspects of ranges—operational characteristics of training facilities, physical characteristics of real property, and data on the range as part of the natural and cultural environment.

(2) Integrated Management. We are integrating the management of ranges across the four disciplines that directly affect them: range operations and modernization; facilities and installation management; munitions management and safety; and environmental management.

(3) Outreach. The Army is working to inform political leadership, regulators, and communities to improve understanding of the Army's need for training and testing and the Army's more sophisticated range management approach.

The Army is developing both an overarching Army regulation and detailed implementing guidance to the field on the SRP. Specific programs that will support sustainment of ranges and minimize the impacts of encroachment include: implementation of the Army Range and Training Land Strategy, quantification of encroachment impacts in the Army Installation Status Report, implementation of

Army Compatible Use Buffers (utilizing authorities granted by Congress in Section 2811 in the National Defense Authorization Act for Fiscal Year 2003), and the implementation of mission-focused environmental management systems on all Army installations.

I would like to comment specifically on the Army's efforts to implement the authority Congress granted the military departments earlier this year to acquire buffer zones around our installations. Fort Bragg pioneered this type of agreement, and now, Fort Carson, Colorado, has moved out and implemented one of our first agreements under the new legislation. Under a cooperative agreement between The Nature Conservancy and Fort Carson, The Nature Conservancy has negotiated a renewable lease with a private landowner that establishes a conservation easement and precludes development on about 30,000 acres and 14 linear miles of perimeter on the Fort Carson's southern boundary. We are excited about the prospects this new authority presents and will be working hard to identify suitable properties and resources to implement the program fully.

The Office of the Secretary of Defense is working with the Services to develop overarching Department policy for sustainment of ranges and operating areas. This policy will support the long-term planning and programming necessary to ensure our ranges and training areas meet mission needs now and in the future.

Admiral CLARK. Beginning on the east coast, Navy is implementing the Training Resource Strategy (TRS), which ties together multiple ranges for fleet training. This plan distributes our training across all ranges instead of relying on a single site as we did at Vieques and consequently lessens the impact of short-term or seasonal encroachment at anyone range on our overall training program. TRS also supports a more realistic training scenario for our forces by providing larger, multi-dimensional training areas that were not available at Vieques.

Taking advantage of legislation passed last year, Navy is developing an "Encroachment Partnering" (EP) program. This program allows acquisition of real estate interests on lands in the vicinity of military properties to reduce incompatible land uses that impact mission capabilities. As described below, funded programs are in place to conduct long-term sustainable planning for Navy ranges, to include identifying locations where EP projects can reduce the impacts associated with urban encroachment. For example, EP projects may support preservation of off-base habitat for species as cities expand, reducing species reliance on military lands. EP projects can also be used to reduce commercial and residential development in areas subject to noise or other indirect effects from training or testing. EP extends the options available for installations to conduct compatible land use planning with States and local governments, and can support positive partnerships with conservation groups and local stakeholders.

In fiscal year 2004, the Navy has budgeted approximately $800 million for compliance, pollution prevention, and conservation to meet our environmental obligations and manage natural resources. Additionally, the President's budget for fiscal year 2004 provides approximately $98 million across the FYDP to support a range sustainment program that will include development of management plans for each of our training range complexes, based upon current and anticipated operational requirements, and including detailed environmental and land-use planning.

An important component of the range sustainability program is ensuring an ongoing dialogue occurs with all stakeholders, including local citizens and community planning organizations, as well as national and State resource agencies. Since encroachment impacts are often manifested via inappropriate regulatory restrictions or citizen lawsuits, this coordinated planning and outreach effort is critical to controlling the adverse impacts of encroachment.

General HAGEE. The Marine Corps is engaged in many ways to protect the viability of our military ranges and bases, especially against encroachment. The Operations and Maintenance Marine Corps (OMMC) budget for environmental compliance and protection has held steady over the last several years at approximately $120 million per year. Our budgets are requirements based and our steady funding is attributable to the fact that environmental legislation has remained consistent since 1996. Previous investments to improve environmental compliance have also resulted in associated cost decreases. Additionally, the conservation portion of our budget has increased from about $1 million OMMC in fiscal year 1992 to about $15 million in fiscal year 2003.

Every Marine Corps base, station, or range with natural resource responsibilities has in place an Integrated Natural Resource Management Plan (INRMP) which provides for the conservation and rehabilitation of natural resources. These plans are prepared in cooperation with regulatory agencies. Fish and Wildlife Service (FWS) policy acknowledges that INRMPs can be acceptable substitutes for critical habitat designation. It is this policy we seek to have Congress codify.

Critical habitat designation under the Endangered Species Act presents the single greatest encroachment concern for the Marine Corps. The standard under the Endangered Species Act is that critical habitat cannot be adversely modified. Currently, we do not train on lands subject to critical habitat designation to ensure no adverse modification. The Marine Corps' ultimate concern is that once land is designated as critical habitat, land management authority transfers from the commanding general of the installation to the regulatory agencies and, via the courts, special interest groups. The Marine Corps has worked with FWS to develop a scientifically and legally based policy that precludes the need to designate critical habitat. The Readiness and Range Preservation Initiative (RRPI) has within it a provision that would codify current FWS practice. Absent legislation, environmental litigation may still cause 57 percent of the 125,000 acre Marine Corps Base (MCB) Camp Pendleton, California and 65 percent of the 23,000 acre Marine Corps Air Station (MCAS) Miramar, California to be designated critical habitat.

The Marine Corps is pursuing Encroachment Partnering opportunities per the National Defense Authorization Act for Fiscal Year 2003 (10 USC 2684A, Sec 2811a) as another tool for addressing encroachment. This legislation allows entry into an agreement with an eligible entity such as a private conservation organization or State, to address the use or development of real property in the vicinity of a military installation. The purpose of Encroachment Partnering agreements are twofold: limit development or use of property that would be incompatible with the mission of the installation and/or preserve habitat on the property that would relieve current or anticipated environmental restrictions for the installation.

MCB Camp Pendleton is participating in the South Coast Conservation Forum, a group whose goal is to acquire lands that will be set aside to protect as many of the 50 listed species in the local Southern California area as possible. MCB Camp Lejeune, North Carolina is a member of the Onslow Bight Forum, a group dedicated to sharing information and discussing potential buffer land partnering opportunities in coastal North Carolina.

The Marine Corps recognized that evidence of negative encroachment impacts, though persuasive, were largely anecdotal. Consequently, the Marine Corps set out to establish quantitative data regarding this issue. Selecting MCB Camp Pendleton as the subject of the study, we examined encroachment impacts on the capability of the installation to support unit operational readiness requirements for a Marine Air Ground Task Force. Study results found that combat arms elements were able to accomplish only 69 percent of established standards for non-firing field training while conducting an amphibious operation at Camp Pendleton. A second phase of this study is on the verge of completion. A final report of some 760 tasks is due to the Commanding General, MCB Camp Pendleton this month. Initial results from the final report's findings are consistent with those of the preliminary assessment. On average, the units evaluated were able to complete their required tasks to just below 70 percent of the established standard, while conducting an amphibious operation at Camp Pendleton. Endangered species were the largest contributing encroachment factor in this study. These findings reinforce that for the Marine Corps, endangered species issues are at the forefront of the Service encroachment debate.

As a necessary follow-on effort to the Camp Pendleton study, a Headquarters Marine Corps Range Management System (RMS) has been funded, including monies programmed through fiscal year 2004, to build a Corps-wide ability to relate training standards to ranges. Intent is to have the RMS in place within the next 18 months. RMS will have broad utilization from the unit through institutional level. This system is envisioned to be able to plan and develop training, schedule ranges and training areas, perform training cost/benefit analysis, and very importantly, measure the effects of encroachment on our installations ability to support unit operational readiness requirements.

To conclude, the Marine Corps needs solutions as outlined in the RRPI, embedded in law, that requires consideration, accommodation, and protection of lands used for military training and operations. RRPI passage, including the provision that addresses critical habitat designation, has direct national security implications, and is a Marine Corps priority.

General JUMPER. The Air Force is also greatly concerned with the increasing impact encroachment is having on our operations and training. The Air Force has made it a priority to define and quantify the resources needed to support our mission requirements and to measure and communicate the impacts of encroachment on mission readiness. The Air Force has a four-prong strategy to address encroachment issues:

(1) Identify and quantify the resource base needed to perform the AF mission, and quantify the readiness impairments resulting from resource denial (encroachment). To accomplish this, the Air Force is developing the Resource Capability Model

(RCM) that will more precisely identify natural, physical, and statutorily controlled resources needed to conduct readiness activities to better inform decisionmakers both within the Air Force and among our community and regulatory partners.

(2) Continue to institute dialogue with other Federal resource management agencies (such as the Department of the Interior, Environmental Protection Agency, Department of Commerce) to develop regulatory or administrative improvements that can relieve military resource encroachment.

(3) Enhance outreach and communications with States, local governments, and interested organizations regarding how unintended consequences of resource management programs can impair military readiness.

(4) Explore the possible need for statutory modifications to prevent unintended impacts to military readiness from resource denial or degradation. One such effort to obtain statutory modifications is to support the RRPI. It is a legislative proposal that will provide the needed clarification to specific environmental statutes in order to protect access to our training resources while continuing to protect the environment. Those specific statutes include the Endangered Species Act, the Clean Air Act, the Resource Conservation Recovery Act, the Comprehensive Environmental Response, the Compensation and Liability Act, and the Marine Mammal Protection Act.

More specifically, the Air Force is conducting mitigation measures to address encroachment issues that impact our operations. For example, at the Barry M. Goldwater Range, the Air Force routinely monitors target areas for Sonoran Pronghorn movements and will divert or cancel live missions projected near Pronghorn areas. At Eglin AFB, we electronically tag and track endangered Gulf Sturgeon to ensure they are not impacted by our operations. At Nellis AFB, the Air Force is acquiring 417 acres on the north departure zone due to urban encroachment off of the southern departure zone.

Through the application of mitigation measures, together with our strategic four-prong approach which includes the provisions of the RRPI, the Air Force will continue to fulfill its dual mission of protecting the lives and well-being of our citizens and to protect the environment.

TRANSFORMATION

19. Senator McCain. General Shinseki, Admiral Clark, General Hagee, and General Jumper, when transformation was first discussed, we talked about a revolution in military affairs, and "skipping a generation of technology." We talked about taking advantage of emerging technology to decrease the size of our military forces while increasing their mobility and lethality. Kenneth J. Krieg, Special Assistant to the Secretary and Deputy Secretary of Defense, recently came over to brief our staffs on the current status of transformation. His briefing had little to do with warfighting. I would characterize his briefing as more of a major reform of DOD bureaucracy. When Dov Zakheim, Under Secretary of Defense (Comptroller) came to the Hill and briefed this year's budget, he talked at length about what a transformational budget this is. Yet it is very telling that in your R&D budget, while there is $870 million for the development of Unmanned Aerial Vehicles (UAVs), there is $5.5 billion for continued development for three short range fighter programs, all three of which were considered to be candidates for the chopping block 2 years ago to provide money for transformational programs and technologies. What has happened to transformation?

General Shinseki. The Army is firmly committed to its transformation efforts. In this President's budget and its associated Future Year Defense Plan, the Army has generated approximately $22 billion of savings by terminating 24 systems ($13.9 billion) and reducing or restructuring an additional 24 ($8.6 billion) in order to fund transformation and other higher priority programs. The Army reinvested these savings into: Future Combat System ($13.5 billion), Precision Munitions ($3.2 billion), Sensor and Communications ($2.3 billion), Science & Technology ($1.1 billion), Missile and Air Defense ($1.1 billion), and other smaller high priority systems.

Admiral Clark. Transformation remains embedded in everything we do, and the Navy is committed to what we see as joint transformation at the Service level. To this end, transformation is about more than investing in new technologies, although that is certainly an important part of it. It is also about developing new operational concepts such as the Global Concepts of Operations; new processes such as Sea Warrior, Sea Trial and Sea Enterprise; and new organizations such as Navy-Marine Corp Tactical Aviation Integration, all of which I described in my testimony. These initiatives are in important ways about maximizing the effectiveness of the capital assets in which we have already invested.

Transformation is also about investing in programs that will result in major increases in warfighting effectiveness, including the next-generation aircraft carrier (CVN–21), the transformational destroyer (DD(X)) and LCS, the SSGN, the Joint Strike Fighter, and the Advanced Hawkeye (E–2C RMP) Upgrade Program. At the same time, not all of our investments are for new things. Service life extensions, product improvements, and modifications to current equipment may offer significant future returns on investment, such as the cruiser conversion plan. Other modernization programs are not transformational by themselves, but are necessary to provide the supporting structure to deliver new transformational initiatives.

General HAGEE. Transformation is not merely about "skipping a generation of technology" or developing Unmanned Aerial Vehicles and other future technologies. Transformation is also about developing new operational concepts, organizational constructs, and business reforms that will enable us to realize our vision of future warfighting. While future technologies play some part in achieving these transformational capabilities, many of the currently existing or planned programs and technologies also support the transformation of the Marine Corps. Indeed, if we can achieve a transformational capability through changes in our organizations or operating concepts, then we may be able to reallocate some of those savings to develop capabilities that can only be realized through future technologies. Many of the existing or planned programs are not, of themselves, transformational. But, enhancements in their reliability, availability, and maintainability over previous systems will allow us to pursue that next generation of technology without sacrificing the warfighting capabilities of today. Regardless, transformation should only be judged by the improvements in the overall capabilities of the Nation's warfighters.

General JUMPER. Senator, transformation is alive and well in the Air Force. We are investing more than $95 billion over the FYDP in transformational capabilities. These capabilities are provided by a variety of programs and initiatives, including the F/A–22 Raptor and F–35 Joint Strike Fighter programs you referred to, but not limited to them. Transformation as we see it is not just about new programs, but about exploiting new approaches to the operational concepts and organizational structures we develop for the employment of both new and existing technologies. Further, the AF is not transforming in a vacuum—the unique air and space capabilities we provide are just one part of an integrated joint, interagency, and coalition team. Ensuring that the entire team is equipped with complementary and synergistic capabilities and platforms is important as we transform the Air Force.

It is easy to fall into the trap of focusing on a particular system when discussing transformation. Truth is that the transformed Joint Forces will be composed of a "system of systems" connected through operating concepts and organizational constructs. Those forces will be more network-centric, less platform-centric, and able to better conduct effects-based operations by increasing information sharing.

They will have C^4ISR capabilities that provide a joint common relevant operational situational awareness of the battlespace, rapid and robust sensor-to-shooter targeting, reachback and other necessary prerequisites for network-centric warfare. They will do it with integrated Air Force capabilities and systems we are developing and investing in now—including the Space Based Radar, the Advanced Extremely High Frequency satellite constellation, laser-based communications, the Distributed Common Ground System, and Global Positioning System Blocks IIF & III. They will do it by bringing together these capabilities, along with the F/A–22 and F–35, to provide an overwhelming ability to see, reach out, and touch any possible adversary with the right tool to achieve the intended effect.

To more directly address your comments about the short-range fighter programs we're pursuing, I'd like to expand on some of the transformational capabilities the F/A–22 will bring to the United States. The Raptor combines air dominance, SEAD/DEAD (suppression/destruction of enemy air defenses), and precision attack capabilities in one platform. Its stealth, supercruise, maneuverability, and integrated avionics will allow us to overcome night-operating limitations in heavily defended areas, and bring persistent stealth to the battlespace. Our warfighting commanders will have a greatly enhanced ability to overcome anti-access environments, to "kick down the door" to clear the way for follow-on forces and missions.

Complementing the F/A–22's superior air dominance and ground attack "kick down the door" capability, the F–35 provides persistent, follow-on ground attack. It will give our joint and allied air forces a greatly improved stealth platform with enhanced strike capabilities at a lower cost by capitalizing on joint investments by the Air Force, Navy, Marine Corps, and allies. In addition to reduced procurement costs, the F–35 will also be cheaper to maintain and operate. The F–35 Joint Strike Fighter is the ideal weapons platform to replace our aging strike fighters.

Finally, the Air Force is fully committed to capitalizing on the warfighting capabilities inherent with UAVs. From a historical perspective, we are in a "Billy Mitch-

ell era" with regard to UAV development. The recently completed Defense Science Board study of UAVs noted that the loss rates of existing UAVs are over 50 times higher than for existing manned platforms. They also reported that these UAVs can cost over $40 million each. Our R&D investment of $870 million for UAVs is thus sizeable given the maturity of their development. They, therefore, require a more substantial investment to successfully transition these programs to production and deployment. The differences you see in our R&D investment is more a factor of the development maturity of the programs than any lack of commitment for UAVs. As the development of UAVs matures, our investment will increase accordingly.

20. Senator McCain. General Shinseki, Admiral Clark, General Hagee, and General Jumper, why are we now allowing evolutionary, traditional platforms to be labeled transformational?

General Shinseki. Army transformation consists of three primary vectors—the current Legacy Force, the Stryker Brigades, and the Objective Force. Over the last 3 years, the Army has undertaken transforming itself into a force that is more strategically responsive and dominant at every point on the spectrum of military operations. While Army transformation encompasses these three vectors, the Army has worked in concert with the Office of the Secretary of Defense as to which systems are considered transformational. The Army has 19 systems recognized by the Department as transformational, and they include the Future Combat Systems, the Warfighter Information Network Tactical, Comanche, and the Joint Tactical Radio System. Current Army platforms such as the Apache, Abrams, and Bradley while crucial to the Army's transformation efforts, have not been classified as transformational.

Admiral Clark. The President's stated goal is to 'skip a generation' of technology and accelerate transformational technologies. For example, aircraft carriers are indeed a 'traditional platform,' however, in CVN–21 we have leapt from the CVN(X) development plan into CVN–21 within about the same timeline. The transformational technologies include a new electrical generation and distribution system, improved flight deck design with Electromagnetic Aircraft Launching System, Advanced Arresting Gear, improved sortie generation, enhanced survivability, reduced manning, and incorporation of a flexible infrastructure that will allow the insertion of new capabilities as they evolve.

General Hagee. Platforms themselves should not be viewed as traditional or transformational. Instead, the innovative and relevant capabilities that these platforms help support better demonstrate the transformation of our force. The new operational concepts we develop first describe our vision of future warfighting, and indicate the capabilities that will be required to achieve this vision. Some of these capabilities can then be achieved only through the employment of leap-ahead technologies and with the development of new platforms, such as the V–22 Osprey. Often, however, these capabilities will rely equally on platforms already on hand—for mobility, fire support, combat service, or communications, for example. In fact, we intentionally leverage these investments, in both dollars and training, whenever possible to achieve new capabilities as efficiently as possible. I think it is more useful to evaluate our transformation based on the new or dramatically improved capabilities we provide to joint warfighters, rather than upon an appraisal of any individual platform.

General Jumper. We primarily judge the transformational qualities of our platforms based on whether the platform provides a significant improvement to our joint warfighting capabilities that enable new concepts for military operations. For instances that allow the measurement of warfighting capability, "significant improvement" is usually interpreted to mean a near order of magnitude improvement in our warfighting capability. Another factor that contributes to our assessment is the contribution of our platforms to Secretary Rumsfeld's "Critical Operational Goals of Transformation." If our platforms provide a substantial contribution towards the satisfaction of these goals, it may be labeled transformational.

Not all of our platforms contribute to our transformation through the implementation of new technologies. Some platforms become transformational through use of existing technologies in new innovative ways to significantly improve our warfighting capabilities. There is no time element associated with our criteria. We judge our platforms based on their contribution to our warfighting capabilities. Consequently, it is entirely consistent with our viewpoint to have platforms that preceded "transformation" as a DOD initiative to be labeled transformational.

21. Senator McCain. General Shinseki, Admiral Clark, General Hagee, and General Jumper, what time line are we looking at for OSD's desired bureaucratic reforms to actually have an impact on the battlefield for our warfighters?

General SHINSEKI. On the DOD level, it is my understanding that many of the proposed bureaucratic reforms require congressional action and assistance in order to begin implementation, and will be forwarded to Congress as part of a comprehensive transformation package.

Speaking from the Army's perspective, we have ongoing and emerging efforts to identify and institute changes to our internal business processes. The primary focus of our business process reforms has been two-fold: free up resources available for higher priority programs, and streamline processes and procedures to use our soldiers' and civilians' time more efficiently. A few of these reforms will have near-term impacts (within 1 year) in terms of freeing up personnel resources for other activities or streamlining processes, but the majority take a longer time to implement.

The Army's current internal business reform process, known as the Army Business Initiative Council (Army BIC), has focused the majority of its efforts on identifying and implementing mid-level improvements intended to produce near-term savings and efficiencies. To date, Secretary White, as part of the Army BIC process, has approved 53 initiatives. Some of those initiatives can be implemented simply by changing old and outdated regulations and policies. Others require the assistance of Congress to change statutory law.

One example of an initiative that has been approved by the BIC for action, and championed by the Army, was recently forwarded to this committee as part of the proposed National Defense Authorization Act for Fiscal Year 2004. The initiative will allow the Army and the other Services to get out of the business of purchasing, administering, and paying for government cellular phones and is intended to save funding and free up manpower for other, more important tasks. Instead, for those with a validated government need for cellular phone use, we would instead use the authority being sought from your committee to provide them with a flat-rate stipend to use their personal phone for government business.

Another initiative approved for implementation within the Army is to update the Common Tables of Allowance, which will help ensure equipment authorizations for our combat units and more accurately reflect their current requirements, and thus make them better prepared to carry out their combat mission when called upon to do so.

The above initiative is more representative of the type of initiatives approved by the Army BIC; less than 20 percent of all approved Army BIC initiatives require congressional action for implementation. However, we do look forward to working with your committee on those Army BIC initiatives which require congressional assistance in the near future.

Admiral CLARK. Secretary Rumsfeld is pursuing a number of initiatives. I believe some of them will have immediate impact and some will take longer to mature, but in the end we will be a more streamlined, agile Department.

General HAGEE. The Secretary of Defense's Transformation Planning Guidance provides a strategy and timeline for the development and fielding of new capabilities for our joint warfighters. Within the next 2–3 years, we can expect to see transformational changes to the interoperability of our forces, especially in terms of joint planning and communications, by taking into account lessons learned from joint training and ongoing operations, as well as the results from advanced technology demonstrations and experimentation. During the next decade, our ongoing efforts to develop new joint operational concepts will begin to promote the true integration of the various capabilities the Services provide as we work to meet the six operational goals established in the 2001 Quadrennial Defense Review. Finally, the Chairman's Joint Vision articulates our far-term view of future operations and describes the capabilities that will reach the field in 15 to 20 years. I believe that this consistent emphasis on developing capabilities that are "born-joint" for the near-, mid-, and far-term will fundamentally change our acquisition, training, and planning processes, and truly transform the way the way we operate on tomorrow's battlefield.

General JUMPER. Our new mind set for capabilities development, which we call "Agile Acquisition," is beginning to take hold and pay dividends. Over the past 18 months we have proven to ourselves that we can, in fact, reform our processes and deliver new capabilities to the warfighter faster. For wartime specific requirements we use the Rapid Response Process (RRP). RRP delivers approval to proceed with material solutions submitted by MAJCOM combatant commanders to CSAF within 19 days. Success to date—the acquisition and fielding of 33 urgent Combat Mission Need Statements valued in excess of $308 million across 12 platforms. Outside of wartime specific requirements, we have also accelerated some warfighter acquisition initiatives from 3 years to less than 1 year for contract award. One such example is the Joint Warning and Reporting Network for detecting, analyzing, and warning of potential chemical, biological, radiological, and nuclear (CBRN) hazards.

The challenge now is to take these successes and institutionalize them so that they become the way we do business. The AF is working with OSD to ensure that all policies (both OSD and AF) foster collaboration, initiative, trust, and partnering. All of this is fixed on the twin goals of Agile Acquisition: reduced cycle time and increased credibility. Additionally, we are aggressively developing training programs to not only teach people new processes, but also to change the work culture to one that accepts the urgency of Agile Acquisition.

"GO PILLS"

22. Senator MCCAIN. General Jumper, there have been reports in the press regarding an Air Force policy which authorizes Air Force pilots to take amphetamines called "go pills" as a "fatigue-management tool". The reports I saw described that Air Force tactical aviation pilots, not just bomber crews, use the "go pills" during combat air patrol (CAP) missions.

Can you describe to me why does the Air Force finds it necessary to use amphetamines as a fatigue-management tool and Navy and Marine Corps pilots do not use it, but are subjected to similar combat air patrol missions? I believe some of our citizens may find it disconcerting to learn that Air Force combat air patrols over cities since September 11 were flown by Air Force pilots using amphetamines.

General JUMPER. I can't speak for the Navy or Marine Corps, but I'll be happy to answer your concerns about the Air Force's policy for use of "go pills" as a fatigue-management tool. It is part of a comprehensive program that includes strict usage control and prefers fatigue management over pharmacological use. The policy grew out of a need to be able to sustain operations on long-duration missions, often at night. From 1972 to 1995 the Air Force sustained 96 serious mishaps in which fatigue was cited as a factor; there were no mishaps in which the use of stimulants was a factor.

The Air Force conducted a comprehensive 18-month review on the effects of the medication and concluded that the pills provide an extra margin of safety by helping aircrews counter fatigue. Use of the pills is completely voluntary at the discretion of the aircrew, and use is approved in each case in writing by commanders, normally for missions over 8 hours for fighter aircraft or 12 hours for bombers. Individuals are informed that "go pills should only be used in conjunction with fatigue-management tools or after all fatigue-management tools have been exhausted."

RESERVE COMPONENT

23. Senator MCCAIN. General Shinseki, in your statement you talk about the importance of the Reserve component in supporting defense requirements. The significant number of Reserve personnel activated since September 11 clearly validates your comments. As you stated, today more than 50 percent of our soldiers are in the Reserve component (RC). The Secretary of Defense has commented that there are functions and capabilities now residing only in the RC that need to exist in our Active-Duty Forces. I see this as another indication of the need to increase your end strength. Please explain how you intend to migrate capabilities back in to the active component (AC) under current end strength limitations.

General SHINSEKI. While the congressionally-mandated fiscal year 2002 active Army end strength was 480,000, the Army exceeded this end strength target, as well as the budgeted average strength of 474,000 man-years. The Army finished fiscal year 2002 with an end strength of 486,543 (78,158 officers, 404,305 enlisted, and 4,080 cadets). The Army was allowed to exceed the end strength targets only because of the 2 percent flex authorized by Congress. The Army will continue to utilize this flex and continue to use RC forces to meet current and emerging requirements for the global war on terrorism and the new strategic environment.

The Army's AC and RC force mix is the result of deliberate actions to balance risks and priorities in light of operational requirements as well as resource constraints. The Army continues to adjust its force structure based on the "1–4–2–1" force-sizing construct. The Army's force mix is designed to support the geographic combatant commander's requirements and is determined using the Total Army Analysis (TAA) process. To stay within constant end strength levels, adding capabilities to the Active Force will require the transfer of some mission capabilities between the Active and Reserve Force. A number of options exist to reduce risk including the conversion of lower demand structure inside the Active Force; converting key capabilities held in the RC, but needed intermittently; and changes in Reserve personnel management to increase access by enhancing volunteerism and diminishing involuntary mobilization.

Additionally, for the Program Objective Memorandum 2004–2009, over 19,500 spaces were programmed for change within the Active, Guard, and Reserve Force structure. Since fiscal year 2001, the Army has activated or has programmed to activate through fiscal year 2009, a total of 68 active, 102 National Guard, and 85 Reserve units that fall into these high-demand categories: aviation, chemical, civil affairs/psychological operations, and military police. The enhanced force capabilities address the most urgent needs.

Currently, the Office of the Secretary of Defense, in conjunction with the Joint Staff has undertaken a study to improve operational availability of all military forces. As part of this study, the AC/RC mix is being studied in the context of short-notice, short-duration major combat operations. This study is incomplete and will be continued as part of Defense planning for fiscal year 2005 to determine any recommended force structure changes.

24. Senator McCain. General Shinseki, I noted that the Army intends to invest nearly $700 million over the next 6 years to modernize key training ranges, such as the National Training Center at Fort Irwin, the Joint Readiness Training Center at Fort Polk, and the Deep Attack Center near Gila Bend. What improvements will these funds be directed towards?

General Shinseki. The Combat Training Center (CTC) modernization program modernizes the maneuver CTCs, the National Training Center (NTC), the Joint Readiness Training Center, the Combat Maneuver Training Center, and establishes the Deep Attack Center of Excellence. This allows the CTC program to develop its leaders, keep pace with Army transformation, provide high-quality, full-spectrum training operations, and realistic joint and combined arms training. During the next 6 years, the Army will invest nearly $700 million to modernize and establish these training centers. The $700 million provides for opposing forces surrogate vehicles, surrogate tank vehicles, common training instrumentation architecture, objective instrumentation systems, and NTC military operations on urbanized terrain.

The Deep Attack Center of Excellence is designed for corps level attack aviation training with Air Force integration. It will provide a rigorous, integrated, live CTC-type collective training experience for corps and divisional attack battalions, other service attack systems, and respective enabling command, control, and intelligence, surveillance, and reconnaissance elements along with other combined arms systems in a joint environment.

SHIP RETIREMENTS

25. Senator McCain. Admiral Clark, the President's budget includes the retirement of the *Spruance*-class destroyers. I have two concerns here. First, today's Navy routinely operates in littoral waters increasingly populated by a very capable diesel submarine threat, yet we are doing away with a class of ships designed to counter that threat. Second, these destroyers have been equipped, at significant cost, to be able to carry Tomahawk missiles. What is the Navy doing to manage the loss of both a key antisubmarine warfare (ASW) asset and a capable strike platform?

Admiral Clark. The *Spruance*-class was designed to counter the Soviet Navy's blue water nuclear submarine threat, which we no longer face. Current Navy warfighting analysis indicates decommissioning this class of ship does not affect our ability to prosecute diesel submarines in the littoral. Our development of LCS and its capabilities inherent in the antisubmarine warfare mission module will provide us a new and better capability to prosecute diesel submarines at a lower cost.

A key issue for littoral ASW is the ability to operate a helicopter. The number of available helo spots exceeds the inventory of helicopters available in the fleet, even with the accelerated decommissioning of the *Spruance*-class.

Available verticle launch system (VLS) cells lost by the decommissioning of the *Spruance*-class are gained back by the commissionings of DDG–51 Flight IIA destroyers. These ships will provide substantially more combat capability in every warfare area and 96 VLS cells compared to the 61 on *Spruance*–class ships. The number of VLS cells in the fleet by fiscal year 2004 is greater than in fiscal year 2003 even with the decommissionings, and rises steadily thereafter.

Weapon Systems	Fiscal Year								
	2001	2002	2003	2004	2005	2006	2007	2008	2009
Total VLS Cells	6,869	7,131	6,870	6,949	6,993	7,316	[1] 7,816	8,316	8,508
Total Helo Spots [2]	164	166	152	153	152	158	166	170	174

[1] SSGN IOC
[2] Helo Spots exceed LAMPS inventory

26. Senator McCain. Admiral Clark, you state that we currently have 151 ships deployed. How can you maintain that OPTEMPO, and stay within PERSTEMPO while retiring these ships? Would it not make more sense to hold off retiring these ships until after world wide requirements have dropped off? Perhaps sometime after the Iraq situation has been resolved?

Admiral Clark. Our Navy is at the highest state of readiness that I've ever witnessed in my career. This is duel in no small part, to the tradeoffs we have made between quantity and capability—including the accelerated retirement of some of our ships. Last year, I promised we would sharpen our focus on our force structure in the years ahead—to buy the ships, aircraft, and the capabilities needed for tomorrow's Navy while at the same time, maintaining our ability to meet operational requirements. As a result, we took a hard look at the ways we could balance these priorities and our discretionary investments to both satisfy the near-term operational risks and prepare for the long-term risks of an uncertain future. We identified several aging, legacy systems with limited growth potential and high operating and support costs, and ultimately, accelerated the retirement of 11 ships and 70 aircraft, divested more than 50 systems and eliminated thousands of legacy IT applications. These initiatives result in an acceptable operational risk in the near term because of our emphasis on sustaining our current readiness gains. Equally important these difficult decisions yielded $1.9 billion for reinvestment and will do much to help reduce our future risk.

ENVIRONMENT

27. Senator McCain. Admiral Clark, I am aware of a number of environmental issues that are in the works on the Commerce Committee that have military implications. Would you elaborate on some of the specific issues surrounding the Marine Mammal Protection Act and how they are impacting naval readiness?

Admiral Clark. The definition of the term "harassment" of marine mammals in the Marine Mammal Protection Act (MMPA) is a source of confusion because the definition is tied to vague and ambiguous terms such as "annoyance" and "potential to disturb." These terms apply to even the slightest changes in marine mammal behavior and are ripe for litigation that leads to increased restrictions on training and testing.

In November 2002, a Federal District Court judge in San Francisco presiding over a case brought by special interest groups alleging violation of the MMPA, National Environmental Policy Act (NEPA), and the Endangered Species Act (ESA) issued a court order that strictly limits employment of the Surveillance Towed Array Sensor System Low Frequency Active (SURTASS LFA) sonar system. This advanced system is designed to detect and track the growing number of quiet diesel submarines possessed by nations which could threaten our vital national security. After highlighting what the court viewed as flaws in regulatory agency implementation of the MMPA and ESA, and despite the Navy's unprecedented efforts to comply with NEPA, the court issued a preliminary injunction restricting Navy's deployment of SURTASS LFA to only a small area in the Western Pacific. As a result of the inherent structural flaws in the laws themselves as applied to worldwide military readiness activities, the Navy now finds the deployment and operation of one of our most important national security assets constrained by a Federal Court as a result of litigation brought by special interest groups that is specifically designed to deny the Navy use of the system. Future testing and employment of SURTASS LFA (and potentially other Navy training and testing programs) are in jeopardy because of flaws in the MMPA, which was originally enacted to protect whales from commercial exploitation and to prevent dolphins and other marine mammals from accidental death or injury during commercial fishing operations.

The submarine threat today is real and in some ways has become more challenging than during the Cold War. Many nations are capable of employing quiet-diesel submarines to deny access or significantly delay execution of joint and coalition operations in support of our vital interests. Of the approximately 500 non-U.S. sub-

marines in the world, almost half that number are operated by non-allied nations. Of greatest concern are the new ultra-quiet diesel-electric submarines armed with deadly torpedoes and cruise missiles being produced or acquired by the People's Republic of China, Iran, and North Korea. These diesel submarines are very difficult to detect outside the range at which they can launch attacks against U.S. and allied ships using passive sonar systems. Active systems like SURTASS LFA, when used in conjunction with other antisubmarine sensor and weapons systems, are necessary to detect, locate, and destroy or avoid hostile submarines before they close within range of our forces.

While recognizing the national security need for SURTASS LFA, nevertheless, the Federal District Court judge deciding the LFA lawsuit was constrained by the broad language of the MMPA, which was not drafted with application to military readiness activities in mind. Notwithstanding the plaintiffs' failure to produce scientific evidence contradicting the independent scientific research sponsored by the Navy in coordination with numerous outside experts that the system could be operated with negligible harm to marine mammals, the court opined that Navy training must be restricted. In reaching this conclusion, the court noted that under the definition of harassment, the phrase "potential to disturb" hinged on the word "potential" and extended to individual animals. Quoting from the opinion, the judge said, "In fact, by focusing on potential harassment, the statute appears to consider all the animals in a population to be harassed if there is the potential for the act to disturb the behavior patterns of the most sensitive individual in the group." (Emphasis added.) Interpreting the law this broadly would require authorization (permits) for harassment of potentially hundreds, if not thousands, of marine mammals based on the benign behavioral responses of one or two of the most sensitive animals.

Highlighting how difficult it would be to apply the MMPA to worldwide military readiness activities under such a broad interpretation of harassment, the court also pointed out that a separate structural flaw in the MMPA limits permits for harassment to no more than a "small number" of marine mammals. Overturning the regulatory agency's decades-old interpretation of the MMPA, the court also said that the "small number" of animals affected cannot be defined in terms of whether there would be negligible impact on the species, but rather is an absolute number that must be determined to be "small." The court's far-reaching opinion underscores shortcomings in the MMPA, which apply to any worldwide military readiness activity, or any grouping of military training activities that might be submitted for an overall review of impact on the environment.

Other examples of how the MMPA affects testing and training follow:

Navy Research: During the last 6 years of Navy research on how to counter mines and detect submarines in shallow water, over 78 percent of the tests have been delayed, scaled back, or cancelled due to the impact of environmental regulations.

Shallow Water Training Range: Lack of clarity in the definition of "harassment" is delaying the establishment of shallow water training ranges to prepare sailors for the Navy's most difficult battlefield—shallow water antisubmarine warfare.

- Navy's fleet exercises face severe limitations to avoid potential "harassment" of marine mammals.
- Exercises to protect ships from submarines and mines in narrow, shallow straits, such as the Strait of Hormuz in the Persian Gulf, have been moved to less realistic conditions in deep water.
- Some exercises forced to adopt aerial and other visual surveys for sea turtles and marine mammals can only be done in daylight. The mitigation denies the ability to train at night.

To address these issues, I ask for your consideration of the narrowly focused amendments to the MMPA proposed by DOD in the National Defense Authorization Act for Fiscal Year 2004, which has now been transmitted by the President to Congress. Our proposal to clarify the definition of "harassment" and allow authorization of activities under the MMPA that would have a "negligible" impact on a stock or species, and follow recommendations made in a report to Congress by the National Research Council (NRC) of the National Academy of Sciences in 2000. According to the NRC, if the current definition of Level B harassment (detectable changes in behavior) were applied to commercial shipping and recreational boating as strenuously as it is applied to scientific and naval activities, the result would be crippling regulation of nearly every motorized vessel operating in U.S. waters.

The DOD proposed amendment to the MMPA will ensure protection of marine mammals while allowing sufficient flexibility to conduct training and other operations essential to national security. Left unchanged, the MMPA will continue to be

the subject of litigation brought by special interest groups and could lead to restrictions on other sonar systems in use by the fleet for over 30 years.

AVIATION SAFETY

28. Senator MCCAIN. Admiral Clark, an article in the November 4, 2002 Defense News delineated a key and expanding roll for rotary wind aircraft in battle group operations as you invest in MH–60R and MH–60S helicopters. I was surprised to learn that the Navy has elected not to include the Cockpit Air Bag System (CABS) crash-activated, inflatable protection system in these new airframes. Analysis of crash date shows that airbags will save one aviator of every three that is killed in what are considered survivable crash sequences. The Army is currently equipping its rotary fleet with CABS, why has the Navy elected to forego this readily available means of protecting the aircraft's most valuable asset?

Admiral CLARK. The U.S. Navy, through Naval Air Systems Command engineering processes, has a hazard analysis and risk management program, which it applies to all type/model/series of Navy and Marine Corps aircraft. The Navy recognizes the benefits of CABS and has included it in both the MH–60S and MH–60R Operational Requirements Documents (ORD) as elements of the block upgrade program. Through the evolutionary acquisition process, these block upgrades will improve aircrew survivability and protect our most valuable assets.

LITTORAL COMBAT SHIP (LCS) PROCUREMENT

29. Senator MCCAIN. Admiral Clark and General Jumper, last year the Littoral Combat Ship (LCS) was not in the fiscal year 2003 proposed budget. I am impressed that you have been able to accelerate development and construction of Littoral Combat Ships in this year's budget, and your 6-year funding plan, including beginning construction next year. How have you been able to do this without leasing? As I understand it, the basis for why the Air Force needs to lease KC–767 tankers is because our acquisition process is too slow and laborious. General Jumper, perhaps your acquisition people need to speak with Admiral Clark's. Please comment.

Admiral CLARK. LCS brings a new approach to ship development. The LCS acquisition, a streamlined derivative of the traditional approach, focuses principally on developing a ship to accommodate modular combat systems. These combat systems modules will be developed separately from ship construction. In line with recent DOD initiatives to streamline and tailor the acquisition process, the Navy has planned for LCS to begin construction no later than fiscal year 2005. LCS program initiation in fiscal year 2003 affords an opportunity to employ innovative spiral development and acquisition methods from the keel up. Lessons learned from Navy experimentation with small high-speed ships and innovative hull forms such as Hybrid Deep Vee Demonstrator (HDV(D)–100), High Speed Vessel (HSV), Coastal Waters Interdiction Platform (CWIP), TRITON, and SLICE has proven invaluable in reducing program risk. Collaboration between the Navy and the U.S. Coast Guard Deepwater program and with allied nations facilitates cost effective development and procurement of the LCS and its associated mission capability modules.

Early LCS flights will heavily leverage existing technologies and ship designs, thereby accelerating the timeline for requirements development and acquisition, which will keep delivery times for LCS significantly shorter than traditional ship programs.

General JUMPER. Sir, the Littoral Combat Ship will be a great asset to the Navy once it has been designed, built, tested, then inserted into the fleet. With this year's proposed budget, the Navy has funded their program earlier in the FYDP just as the USAF has accelerated our KC–135 Replacement Tanker Program into the FYDP. Both programs should deliver their first new systems to the warfighter toward the end of the FYDP. Both programs rely upon industry to design and provide suitable platforms for the missions. So, in essence, both the Air Force and the Navy used similar methods to accelerate both programs a similar amount of time.

However, while the Navy must wait on industry to design and develop their new Littoral Combat Ship, the Air Force can immediately leverage the commercial 767 Tanker Transport design and development work performed by Boeing for the Italian and Japanese Air Forces. Just as the Navy has leased ships in the past to deploy combat support quickly, the USAF believes that leasing air-refueling tankers is a good approach to quickly replace our 43-plus-year-old KC–135E aircraft.

The KC–767 leasing proposal, if approved by DOD and Congress, will have lower upfront costs than a traditional procurement and will field 67 new KC–767 tankers within the FYDP, compared to one aircraft via traditional procurement. In addition,

the leased KC–767 program could provide the taxpayers with the benefits of immediate high rate production, at a lower cost than achievable through a traditional approach. These innovations in the acquisition process support our Nation's security needs significantly faster, while providing responsible stewardship of our taxpayers' dollars.

BOEING AND DELTA IV ROCKETS

30. Senator MCCAIN. General Jumper, an article in the Wall Street Journal on February 12, 2003 reported the Air Force will pay the Boeing Company and Lockheed Martin Corporation $538 million to keep both companies in the rocket-launch business because of the continuing downturn in the commercial-satellite market. Is this a Department of Defense policy or is Secretary Roche proposing this policy on his own?

General JUMPER. The Air Force and DOD together are committed to providing the capability to launch our Nation's national security payloads required by today's warfighters. The fiscal year 2004 President's budget provides funding for assured access initiatives to provide that capability.

31. Senator MCCAIN. General Jumper, attempts in the past to artificially keep two defense companies in a particular sector of the defense market for the sake of competition has not produced competition at all. In fact, there have been many independent reports that no efficiencies were ever realized. Does it make sense to try and keep two defense companies in the rocket-launch business when there may only be enough business for one corporation?

General JUMPER. Although competition is one of the benefits of this approach, the overarching need is to assure access to space for national security, and to do that we need to have two launch providers that can back each other up. When compared to heritage launch systems, Air Force estimates show that the EELV program still meets and exceeds the 25-percent cost saving goal even after the assured access initiatives are considered.

32. Senator MCCAIN. General Jumper, what other options are you examining with regard to this rather questionable policy on the Air Force's rocket-launch program?

General JUMPER. We have examined several options for providing assured access to space, such as foreign launch providers and greater utilization of the space shuttle, and have determined that maintaining two competing contractors to provide assured access is the best approach to meet the growing warfighter demands of our space assets now and in the future.

F–15 CLS CONTRACT

33. Senator MCCAIN. General Jumper, it has recently been brought to our attention that the contract for F–15 Contractor Logistic Support was awarded to a company whose bid was nearly 50 percent higher than the company that currently holds the contract. Rather than stay with the L–3 Corporation that has been performing this task in a fully satisfactory manner for $68.8 million, the Air Force chose to go with a bid by Boeing of $100.2 million. In fact, a recent decision to move the facility to St. Louis vice Seymour Johnson AFB will make the price difference between the two contract bids greater than $32 million due to much higher work rates. Are you aware of this issue? If not, will you please look into it and get back to this committee.

General JUMPER. This refers to a contract award that includes the acquisition of new F–15 training devices as well as upgrades and contractor logistics support for some older devices. The requirement under the solicitation was not the same as the previous contract. The request for proposal (RFP) was not asking for business as usual; therefore, minimally addressing the requirements would likely increase perceived risk for implementation of future aircraft modifications and upgrades. The RFP clearly stated that award would be made on a best value basis, with the combination of evaluation factors other than price (technical/management and past performance) being significantly more important than cost or price. Boeing's technical proposal received high ratings, while the technical proposal of L–3 Communications was marginal and had several significant weaknesses. It was the determination of the Order Award Authority that the technical advantages of Boeing's proposal outweighed the increased cost. This decision is consistent with Section M, of the RFP which states that the best value decision, ". . . may result in an award to a higher-rated, higher-priced offeror, where the decision is consistent with the evaluation fac-

tors and the Order Award Authority reasonably determines that the technical superiority and/or overall business approach of the higher priced offeror outweighs the cost difference."

Location of the training system support center (TSSC) at the Boeing facility in St. Louis did not increase cost differences between the L–3 and Boeing offers. The Boeing order includes fixed prices for operation of the TSSC.

BOEING KC–767 AERIAL TANKER

34. Senator MCCAIN. General Jumper, I continue to be troubled by your Service's push to lease 100 KC–767 tankers under terms that are clearly a disservice to the taxpayers of this country. In the context of your Service's desire for this lease at any cost, the retirement of KC–135s with relatively few flight hours concerns me.

Just last April at a press briefing with Secretary of Defense Rumsfeld, the Chairman of the Joint Chiefs, General Myers, stated the following about the Air Force KC–135 aerial tanker fleet: "the fleet is relatively healthy. These are older aircraft, but have lots of flying hours left on them. They've been re-engined. We are putting new avionics in the cockpit. There's been a lot of work done on those particular aircraft to keep them modern. . ."

Let me review some of the highlights of the information that has been provided to Congress by independent export, the Office of Management and Budget, the General Accounting Office, the Department of Defense Inspector General, and the Congressional Budget Office. These are not my facts, these are facts reported by these agencies.

GAO (2002):

- "The current fleet of KC–135s have between 12,000 to 14,000 flying hours on them—only 33 percent of the lifetime flying hour limit and no KC–135s will meet the limit until 2040."
- "While the KC–135 is an average of 41 years old, its airframe hours and cycles are relatively low. With proper maintenance and upgrades, we believe the aircraft may be sustainable for another 41 years."
- "The Boeing Company, manufacturer of the KC–135, projected that the aircraft could fly for many years beyond the turn of the century, based on average hours flown, and a projected utilization of about 300 hours a year per aircraft."
- "In fact, when I inquired about the average hours per year for KC–135s, GAO said the Air Force reported, "the KC–135 fleet is averaging about 300 hours per year," including Operations Enduring Freedom and Noble Eagle data.
- "The Air Force Mobility Command has higher priorities like replacing the C–5A, there is no requirement to begin replacing KC–135s before fiscal year 2013."

OMB (2002):

- Director Mitch Daniels: "The current fleet of KC–135s is in good condition; there are higher priorities in terms of modernization for the Department of Defense".

Air Force (2002):

- In the February 2003 issue of Military Magazine, you reported that the mission capable rate for KC–135 tankers improved 3.7 percent, up to 79.5 percent last year the second highest in the Air Force inventory. The B–2 bomber mission capable rate by comparison is only 42.1 percent, and that is up 10.6 percent over the previous year.
- According to the Air Force "Tanker Requirement Study 05", replacing the KC–135 fleet with leased Boeing 767 tankers would not solve, and could exacerbate, the shortfalls identified in the TRS–05.

I believe the above information clearly shows that we are prematurely retiring flight hour young KC–135s. The fact is there are aircraft in the DOD inventory as old as the KC–135s with as much as five times the number of flight hours that are still in service and will be for some time.

I would like you to explain why you believe that the KC–135s need to be replaced 10 years earlier than the Air Force's most recent study, in spite of several independent assessments that we do not need to begin replacing the aircraft until 2013, and in fact, the airframes will not reach their flight hour limits until after 2040.

General JUMPER. The Air Force has an obligation to spend the taxpayer's money wisely, while providing a robust, reliable, and flexible air refueling force. Studies, such as the one referenced, are intended to provide planning information to senior

leaders to allow them to make informed decisions rather than dictate a specific way ahead. Competing priorities and limited budget demand our leaders make choices based on risk. Today, our most pressing tanker risk is a delay in the recapitalization process. With over 90 percent of our air refueling capability resting on our venerable KC–135 fleet, replacement needs to begin as soon as possible. The Air Force simply cannot accept the risk of unknown systemic failures that could ground the fleet and cripple the global reach of U.S. and coalition forces.

Every weapons system is unique and comparisons to the KC–135 should be taken in proper context. The KC–135 is the oldest combat weapon system in the Air Force inventory and particularly susceptible to corrosion due to its design and basing history. An abundance of hidden joints and layered body skins on the KC–135 provide ample opportunity for moisture to accumulate, which has only been exacerbated by extended operation in damp and coastal climates.

Subsequent to April 2002, more about the effects of corrosion were learned. We have also gained an appreciation for how much the projected operations and support (O&S) costs for the KC–135 fleet have grown since the completion of the Economic Service Life Study (ESLS). Originally, the ESLS estimated annual cost would escalate from $2.1 billion per year to $3.0 billion by 2040. However, 18 months after the ESLS completion, we determined the average annual O&S cost estimate increased by $250 million over study projections. This equates to an 11.9 percent annum increase in O&S, the equivalent of the operations and maintenance requirements for 62 KC–135s. The updated ESLS data now reflects that the annual cost would escalate from $2.2 billion to $3.4 billion by 2040. While it is true that KC–135s are young in hours compared to structural design life, this fact does nothing to protect the airframes from the corrosive effects of years of exposure to the elements.

With an average of about 17,000 flight hours versus a design limit of about 36,000 hours, you would not expect to see stress-induced metal fatigue on KC–135s. In general, that is the case. Instead, we are seeing age induced corrosion similar to rust, and cracked hoses and wiring, just as you would on a low mileage, 43-year old automobile. Repairing and preventing this type of corrosion is both difficult and expensive. The Air Force is now in the process of incrementally replacing the entire aircraft structure over the next 40 years.

The combined effects of aging, the surge in demand due to the global war on terrorism, and the heightened steady-state stress of a post-September 11 world have compelled the Air Force to accelerate plans to replace the KC–135. Increasing costs and decreasing reliability and maintainability, in light of our future expectations, have reached the point where it no longer makes sense to continue investing limited resources to keep our oldest and least capable tankers flying.

In summary, the Air Force simply cannot accept the risk of unknown systemic failures that could ground the fleet and cripple the global reach of U.S. and coalition forces. Today, our most pressing tanker risk is a delay in the recapitalization process.

35. Senator McCain. General Jumper, what programs do you intend to shift funds from to enable you to pay for a lease of Boeing 767s in the near-term and in the long-term?

General Jumper. The Air Force is working to identify sources to pay for a potential lease. If DOD approves the lease, we will submit the sources with reprogramming actions, budget submissions, and budget amendments as required.

NAVAL SURFACE FIRE SUPPORT

36. Senator McCain. General Hagee, the retirement of 19 *Spruance*-class destroyers reduces the number of 5-inch guns available for fire support missions by 38. This is an area where the Navy has had a chronic shortfall in capability since the battleships were retired in the early 1990s. What impact on the Marine Corps' ability to conduct amphibious operations will this additional reduction in naval guns have?

General Hagee. The Navy's current Naval Surface Fire Support (NSFS) capability lacks sufficient range and lethality to adequately support the Marine Corps' concept of Ship-to-Objective Maneuver (STOM). Also, the fire support system on the *Spruance*-class destroyers is not capable of receiving calls-for-fire via data transmission from the Advanced Field Artillery Tactical Data System (AFATDS). While the Marine Corps is at significant risk today in terms of NSFS support for expeditionary operations, the retirement of these ships, to be completed by fiscal year 2006, will not significantly increase this risk.

The Navy has already started fielding the 5-inch/62-caliber naval gun on newly built *Arleigh Burke*-class destroyers. The Navy is scheduled to field the Naval Fires Control System (NFCS) in fiscal year 2004 to provide the capability to receive and process digital data calls for fire, and the 5-inch Extended Range Guided Munition (ERGM) will be fielded in fiscal year 2006. The introduction of these systems will provide an enhanced capability to provide NSFS support to expeditionary forces that does not reside in the current fleet of surface combatants.

The Navy plans to fully meet the Marine Corps' NSFS requirements in the far term with the fielding of DD(X). The Marine Corps requires that each DD(X) be fielded with two 155-mm Advanced Gun Systems (AGS) and a total magazine capacity of at least 900 extended-range munitions. This configuration for DD(X) will be sufficient to meet minimum Marine Corps NSFS requirements for gun-launched munitions, assuming a total of 24 DD(X) will be built.

AIRCRAFT

37. Senator McCAIN. General Hagee, the V–22 is rapidly approaching what is theoretically a final key decision point. The Marine Corps demonstrated unprecedented flexibility last year in moving off of ships in the Indian Ocean to a base of operations hundreds of miles inland in Afghanistan. A force deployment of this type was thought to be beyond your current air fleet. Does the success of your operations in Afghanistan mitigate the requirement for the V–22?

General HAGEE. The MV–22 remains our number one aviation acquisition priority.

We remain proud of the Marine Corps' contributions in Operation Enduring Freedom (OEF) and our current operations today. These successes highlight the Marine Corps' role in national security as a truly expeditionary force in readiness.

These successes were not without risk and limitations. Issues of force protection, establishment, and maintaining intermediate support bases, limitation in total number of personnel allowed in country, fuel, and range limitations, long range MEDEV AC, and our ability to conduct "Be Prepared To" (BPT) missions highlighted the need to field improved systems like the MV–22 to our Fleet Marine Forces.

The V–22's speed, range, payload, survivability, and self-deployability attributes have implications on the strategic, operational, and tactical levels. Its use in OEF would have given the Joint Task Force commander an increased operational flexibility that would have spanned across all warfighting functions. Specifically in OEF the MV–22 would have:

- Minimized risk
- Increased operational flexibility
- Provided a responsive sustainment capability
- Decreased survivability concerns
- Increased mission success for BPT

38. Senator McCAIN. General Hagee, why does the Marine Corps continue to invest in its aging Huey fleet instead of upgrading to an H–60 variant that would align the Marine Corps with the future Navy rotary wing force? This would dramatically streamline training and logistical support, and provide commonality of parts support between Battle Groups and Amphibious Ready Groups.

General HAGEE. The Marine Corps has chosen to remanufacture both legacy H–1, the AH–1W, and UH–1N airframes with a focus on commonality as a way of reducing the logistical and manpower demands. This decision was controversial at Milestone II and remains a point of discussion because some feel that a combination of AH–64D Apaches and a variant of the H–60 Blackhawk (MH–60S Seahawk Combat Search and Rescue variant) with over 1,500 operated by the Army, Navy, Air Force, Coast Guard, and several other nations, would save money for the government through economies of scale in procurement, and shared maintenance and support burdens.

However, repeated independent analysis has revealed that intra-service commonality between the Huey and Cobra would yield greater benefits in areas of personnel manning requirements and logistics. Most recently, an analysis of alternatives for the H–1 upgrades program was reviewed and updated by OSD. The conclusion, once again, was that the AH–1Z/UH–1Y combination is the most cost effective option that meets the Marine Corps recapitalization and warfighting requirements. The commonality of 84 percent between the AH–1Z and UH–1Y results in significant cost savings, logistics and deployability advantages for the Y/Z fleet over the life cycle. All other alternatives considered for our attack and utility requirements would adversely impact our current manpower force structure and would be

cost prohibited in procurement and life-cycle support. In order to meet USMC Utility Helicopter ORD Thresholds, the MH–60S would require the many additions and modifications to include: Digital moving map system, Helmet mounted display system, Aircraft Survivability suite (radar and laser detection, IR/RF countermeasures), crew served gun system, forward firing ordnance (2.75″ rocket) system with pilot sight, UHF DAMA SATCOM, FLIR with LDRS, Modifications for ballistic tolerances (OBIGGS), cockpit software, and ergonomic fixes.

QUESTIONS SUBMITTED BY SENATOR JOHN CORNYN

B–1

39. Senator CORNYN. General Jumper, there is little doubt that the B–1 has played an important role in Operation Enduring Freedom. I would like to get your thoughts on how the B–1 has performed and how you envision the B–1s role in the future?

General JUMPER. The B–1 performed magnificently during Operation Enduring Freedom, delivering 39 percent of all total tonnage and 67 percent of all JDAM dropped in Afghanistan while flying only 35 percent of bomber strike sorties and 12 percent of all Air Force sorties. Moreover, the B–1 maintained a 78-percent Mission Capable rate while deployed. The B–1 will continue to function as the backbone of the bomber fleet in direct attack operations conducted in permissive and semi-permissive threat environments. A non-permissive threat environment will necessitate the use of standoff munitions to ensure survivability. Armed with a full complement of 24 long-range, precision, stealthy JASSM–ERs, the B–1 provides critical capabilities to the Global Strike (GS) CONOPs while providing enhanced key capabilities to the Global Response (GR) CONOPs.

V–22

40. Senator CORNYN. General Shinseki, Admiral Clark, General Hagee, and General Jumper, I understand that Under Secretary of Defense Pete Aldridge was "encouraged" after being briefed recently on the V–22 flight test program and that he believes he should have enough information by May whether to continue the V–22's production schedule. From an operational perspective, how would an aircraft with capabilities such as the V–22s help you in the global war on terrorism?

General SHINSEKI. The Army does not have an operational requirement for an aircraft with the capabilities such as the V–22.

Admiral CLARK. The V–22 will save American lives in all military operations, including the global war on terrorism. With twice the speed of CH–46, the V–22 will deliver combat forces to the objective area sooner, with less exposure time spent en route. The range of the V–22, five times that of the CH–46, will increase our reach from forward bases and amphibious shipping, allowing us to influence much more of the battlespace simultaneously. The payload capacity of the V–22, three times that of the CH–46, will enable the swift delivery and rapid re-supply of combat forces deep within enemy territory, vastly complicating the enemy's attempts to attack us. With aerial refueling support, the V–22 is capable of self-deploying worldwide. The self-deploying capability combined with the increased speed of the V–22 will allow an initial response to threats much more rapidly than with our current helicopters. The V–22 gives our Marines and Special Forces the capability to strike the terrorists at any time, in any place, with devastating effect and with reduced risk. The V–22 will be a force multiplier that translates into shorter conflicts and reduced friendly casualties.

General HAGEE. The speed, range, payload, survivability, and self-deployment attributes of the V–22 will provide the Joint Force commander with unprecedented operational reach, expanded area of influence, and the ability to leverage netted forces to deter or defeat adversaries. The MV–22 will help meet the requirements for increased flexibility and adaptiveness while overcoming the physical and political challenges of access denial.

- Global self-deployability will enable combatant commanders to reduce their strategic airlift requirements while expediting warfighting capabilities from inside or outside their theater.
- The unparallel survivability of the MV–22 is a salient feature that ensures that the MV–22 not only gets to the fight first but returns.
- The increased operational reach, provided by the MV–22, will allow the Joint Force Commander to conduct operations from deep in the sea-based to deep in the landmass. The combinations of a forward presence force with

the capability to be augmented by global self-deployable MV–22s will enhance at-sea-arrival and assembly operations or expeditionary land-based operations. Eliminating the breakdown and build up period associated with rotorcraft, the MV–22 will be able to support operations on arrival in theater. The increases in speed and range will allow the Joint Force Commander to leverage off of the MV–22's sortie cycle efficiency to increase the tempo of operations. The increases in sortie cycle efficiency will permit expeditious movement of troops and supplies while always retaining the ability to mass forces from a distributed and dispersed environment.

• The combinations of the V–22's attributes exponentially increase the Joint Force commander's possibility of options in the planning and execution phases. The sanctuaries of time, space, and the tyranny of distance that protects terrorist operations and cells will be reduced. The MV–22 will reduce the execution timelines and increase the amount of intelligence that we can act on.

• The introduction of the V–22 will help shape the operational environment and underwrite general deterrence thereby assuring allies and dissuading aggression among other things. Fielding the MV–22 will contribute to general deterrence by conveying the impression that U.S. forces are not only the most powerful forces in the world today, but are likely to stay that way.

General JUMPER. The CV–22 would give the USAF a transformational leap forward in our ability to infiltrate and resupply Special Operations Forces. This platform will meet the long-standing requirement for long-range, night/adverse weather clandestine penetration of politically and/or militarily denied areas, in order to support special operations missions, most within one period of darkness. Additionally, the CV–22 has twice the combat radius of the MH–53, can fly 1.9 times as fast, and can carry 10,000 lbs. more payload.

QUESTIONS SUBMITTED BY SENATOR JACK REED

SCIENCE AND TECHNOLOGY FUNDING

41. Senator REED. Admiral Clark, for the second consecutive year, the Navy is requesting a real decrease in its S&T budget. After removing "pass through" and "devolved" programs that are managed by Navy for Joint Forces Command and OSD, the Navy S&T fiscal year 2004 request is down 3.6 percent from fiscal year 2003 requested levels in constant dollars.

How are declining S&T budgets that are projected out through the years of the FYDP consistent with efforts of transformation? Is this a reflection that the value of your S&T activities in the past have had in supporting your warfighters?

Admiral CLARK. The Navy's fiscal year 2004 President's budget request for science and technology shows an increase from the fiscal year 2003 budget request as shown in the table below.

NAVAL S&T BUDGET

[In millions of dollars]

Budget Activity	President's Budget Request	
	Fiscal Year 2003	Fiscal Year 2004
Basic Research (6.1)	410	457
Applied Research (6.2)	580	536
Advanced Technology Development (6.3)	617	721
Total Naval Science & Technology	1,607	1,714

Pass-through

The Department of Defense appointed U.S. Joint Forces Command (JFCOM) as the "transformation laboratory" of the United States military. JFCOM develops future concepts for joint warfighting. All of the Services help fund the unified commands. The U.S. Joint Forces Command is one of the nine unified commands and is budgeted in the 6.3 portion of the naval science technology request.

Given the expanded mission of JFCOM, it may be more appropriate to place JFCOM funding in a defense wide budget activity. Pending a defense wide line, it may be appropriate to move the funding (which is for prototypes, demonstrations,

and concept development) up to the higher Navy R&D budget activities (i.e. 6.4–6.7).

The JFCOM programs elements are listed below.

[In millions of dollars]

PE Title	PE Number	Fiscal year 2004 President's Budget Request
Navy Technical Information Presentation System	0603727N	151
Joint Warfare Experiments	0603757N	13.7
JFCOM Total		164.7

Devolvement

Although several programs devolved from OSD to Navy, the largest devolved program, the University Research Initiative (URI) program, will now be managed by Navy in support of naval needs and technologies. $71 million is being requested for URI in fiscal year 2004. Navy will now be in charge of URI funding, topics, and the programs executed therein. In the past, Navy competed through OSD for these funds annually and could not incorporate these efforts into our long-term S&T planning. This provides an opportunity to enhance Navy's world class basic research program, which is the cornerstone for future transformational opportunities. Factoring in the URI program, Navy actually has real growth of 1.0 percent over the fiscal year 2003 President's budget request. Beyond fiscal year 2004, there is real growth in fiscal year 2005 as well.

While Basic Research (6.1) has benefited from the devolvement of the URI program to Navy, there remain difficult choices in 6.2 and 6.3 funding to maintain the best possible portfolio in the face of the significantly constrained budgetary environment. This environment has necessitated significant cuts in the Future Naval Capabilities—designed to deliver new capabilities to the warfighter—in order to focus only on the highest priority projects within the 6.2 and 6.3 portfolio.

Transformation

As for transformation, Navy S&T programs directly support and enable transformation. The fiscal year 2004 budget request contains several transformational initiatives, reflecting OSD and Navy leadership priorities. Examples of new initiatives and ongoing programs include the following:

- Unmanned Combat Air Vehicle-Navy (UCAV–N)
- Electric Power Technologies such as the Free Electron Laser and High Temperature Superconducting Motor
- Advanced Multi-function RF System (AMRFS)
- Wideband Gap Power Devices
- Functional Materials-Hypersonic Weapons
- Virtual At-Sea Training (VAST)

Recent experience in Operation Enduring Freedom, where thermobaric weapons and a knowledge web system were among several programs that transitioned directly from S&T to the fleet, demonstrates the current value Navy places in its S&T programs. The investment transformation described above will provide continued support to the warfighter.

42. Senator REED. Admiral Clark, are we sacrificing the next wave of transformation (15–20 years out) that will be driven by today's scientific advances by underinvesting in S&T? What programs were cut in order to achieve the 3.6 percent savings?

Admiral CLARK. The next wave of naval transformation (15–20 years out) requires a robust and strategically balanced investment in Navy's basic research (6.1) account which funds the Department's science requirements. The fiscal year 2004 6.1 budget request ($456.6 million) shows significant growth compared to the fiscal year 2003 request ($409.9 million), due to the devolvement of the URI program. This is a real increase to the Navy 6.1 program and increases the core funding available for Navy discovery and invention, the bedrock of future naval transformation.

While the overall portfolio for S&T increased, there have been both increases and decreases to specific programs, mostly in response to Navy and OSD leadership priorities focused on naval transformation. For example, increases can be found in the UCAV–N program, the Supersonic Cruise Missile program, and the High Altitude Auroral Research Program (HAARP).

Though Core National Naval Responsibilities initiatives were protected from reductions, there remain difficult choices in 6.2 and 6.3 funding to maintain the best possible portfolio in the face of a significantly constrained budgetary environment. This environment has necessitated significant cuts in the Future Naval Capabilities—designed to deliver new capabilities to the warfighter—in order to focus only on the highest priority projects within the 6.2 and 6.3 portfolio.

NAVAL RESEARCH LABORATORY

43. Senator REED. Admiral Clark, a recent article in Defense Horizons titled "The Silence of the Labs" described the ongoing deterioration of the Navy's S&T capability, especially at the Naval Research Laboratory (NRL). What role does NRL play in achieving the vision of Sea Power 21? What steps are being taken to ensure that this organization's important capabilities are not degraded as we seek to transform the Navy?

Admiral CLARK. The Naval Transformational Roadmap supports transformation through the components which comprise Sea Power 21: Sea Strike, Sea Shield, Sea Basing, and ForceNet. Each of these components is enabled by naval science. The Office of Naval Research (ONR) has aligned its science and technology (S&T) investment with Naval Strategy with the strategic goal of naval science being to provide the foundation for overwhelming and enduring technological superiority for American naval forces. The NRL is the Navy's corporate laboratory. As such, it is responsible for execution of much of ONR's S&T investment in support of Sea Power 21.

The role of supporting transformation is not a new one for NRL. Since 1923, the lab has been the source of numerous technological innovations that have made significant contributions to transforming the fleet and creating modern naval warfare. A few of these include: developing the first U.S. radar; inventing the key concepts leading to the Global Positioning System (GPS); and developing, in partnership with industry, GPS's four prototypes and first operational satellite. More recent achievements include an electronic warfare decoy, the ALE–50, which protected combat aircraft over Kosovo, a decoy so effective it earned the nickname "Little Buddy" from U.S. pilots. Another innovation seeing action in Kosovo was Specific Emitter Identification technology, which identifies any radar by its unique characteristics with such accuracy as to "fingerprint" it. In fact, it can distinguish between identical models produced off the same assembly line. Selected by the National Security Agency as the national standard, Coast Guard vessels, naval warships, and aircraft use it to support drug interdiction, enforce treaties, and monitor the movement of materials used in weapons of mass destruction.

NRL's capabilities are, therefore, very important to achieving the vision of Sea Power 21, which seeks to leverage innovative organizations, concepts, and technologies with the stated aim of achieving order of magnitude increases in warfighting effectiveness. For example, among other things, the vision calls for the use of unmanned platforms and an improved intelligence, surveillance, and reconnaissance capability. NRL has world-class expertise in both these areas, and in numerous others of importance.

The problems discussed in "The Silence of the Labs" are not new and, in fact, were validated in a recently-released tri-Service lab study conducted under the auspices of the Naval Research Advisory Committee (NRAC). The study, chartered by the Director, Defense Research and Engineering, produced a report called "Science and Technology Community in Crisis," which argued that the future viability of the Defense Department's S&T capability is threatened by increasing losses of key technical personnel, insufficient levels of funding for facility and equipment modernization, and bureaucratic impediments that often produce counter-productive results in the research environment.

The NRAC panel emphasized, in particular, the serious demographic challenge the labs face over the next several years, when retirements are expected to claim much of their experienced scientific and engineering talent. Because replacing that talent is a top priority, we are already taking steps to improve the labs' ability to recruit, hire, and retain the best technical personnel. For example, we are supporting lab efforts to utilize, to the fullest extent, the personnel demonstration pilots established at a number of labs including the NRL. These pilots, which Congress authorized in Section 342 of the Fiscal Year 1995 National Defense Authorization Act, encourage participating labs to experiment with a variety of innovative personnel practices, each adapted to the many unique lab environments found within and across the Services. While they do not completely solve the personnel problems, these demonstrations have improved our ability to recruit and retain some of the best and brightest technical talent on the market. Another example is an initiative

by the Chief of Naval Research specifically aimed at revitalizing the S&T workforce in our labs and centers. This collaborative effort, which also includes academic partners, has a number of components. For example, it provides scholarships at participating universities in return for obligated service in our labs. It also envisions retraining retired military technology officers and bringing them back into the labs where their valuable experience as warfighters can be infused into our research efforts. We are also supporting other congressionally authorized lab reform efforts including utilization of the experimental authority to hire scientific and technical personnel which you authorized in Section 1113 of the Fiscal Year 2001 National Defense Authorization Act.

SCIENCE AND TECHNOLOGY UNFUNDED PRIORITY LIST

44. Senator REED. General Shinseki, Admiral Clark, General Hagee, and General Jumper, please provide a detailed list of high priority science and technology (S&T) projects which are supportive of your efforts to transform your Services that you were not able to adequately invest in with the fiscal year 2004 budget request.

General SHINSEKI. The Army's unfunded priorities provided to Congress included two S&T efforts that we were unable to fully fund in the fiscal year 2004 budget: $28 million for Future Combat Systems manufacturing technology (Man Tech) and $12 million for the Future Tactical Truck System (FTTS). The Man Tech funding would provide technology solutions to avoid costs in developing munitions and sensors critical to FCS. These include micro electro-mechanical systems for safe and arm functionality, reducing the size and increasing performance of inertial measurement units in munitions, and uncooled infrared sensors for target detection and identification. The FTTS S&T program is a new effort pursuing technologies for next generation medium and heavy tactical cargo vehicles. The primary goals of the FTTS program are to determine the tactical efficiencies of a hybrid-electric vehicle to reduce logistics demands and increase mobility and survivability by adding technologies such as enhanced situational awareness and add-on armors. The FTTS funding would provide embedded prognostics and intelligent load handling, a vehicle/load alignment system, and a smart load conforming tie-down system.

Admiral CLARK.

Title	Fiscal Year 2004	Comments
Electric Based Weapons	61.00	Accelerated research and development of the electrical components, electrical control systems, and material technologies needed to support electric weapons deployment is a very high risk, extremely high payoff investment area. However, significant investments in these areas will provide a revolution in Naval Fires, Time Critical Strike, and Platform Self-Defense while significantly reducing the logistics' footprint required to support this mission area. Products include Electromagnetic Gun Naval Fires, advanced directed energy self-defense weapons, and Free Electron Laser 100KW demonstration.
CVN–21/Advanced Capability Ship.	49.00	Accelerated research and development of the electrical components, electrical control systems, and material technologies needed to support significant expansion of electric power systems and reduction of high maintenance fluid systems is a complex high risk, high payoff investment area. However, significant investments in these areas will ''unlock'' the significant amount of propulsion power for enhanced warfighting capability, such as higher sortie rates, increased striking capability, and improved self-defense while significantly reducing system maintenance and logistics footprint required to support these platforms.
FORCENET	45.00	Develop and demonstrate a shipboard ADM of an Advanced Multifunction RF System (AMRF–C) that will encompass current, planned, and future-growth comms, EW, and LPI radar functions in C, X, and Ku Bands for LCS, DD(X) subs, and CVN–21. Demonstrate wide- and narrow-band anti-jam (AJ) waveforms, a wideband AJ high altitude UAV comms and network package, and a narrowband AJ/LPI/LPD comms and network package (JTRS) necessary for planned and future FORCENET use. Develop technologies and architectures to support high data rate, uninterruptible network to deployed sea base and forces projected ashore.

Title	Fiscal Year 2004	Comments
Space S&T	17.10	Provide the next generation of technologies to enhance and transform both naval and joint warfighting capabilities. The enhancement of space-based communications, navigation, ISR, METOC, and space control all hinge on the development of spacecraft, payloads, and components which are more robust, responsive, covert, and economical. Examples of target technologies are micro-satellites, MEMS, high bandwidth encoding techniques, autonomous operations, etc.
Precision Strike/Solutions to GPS Jamming.	60.10	Provide jam-resistant missile guidance by ultra-tightly-coupled GPS/INS system when stand alone GPS receiver is jammed, thereby, circumventing jammer threats. The ultra-tightly-coupled GPS/INS will increase precision flight time of weapon to target and hands off to inertial navigation to guide the weapon when jammed for the last few minutes of flight. Precision navigation, guidance, and control in a GPS denied environment; Nav by imagery, low cost MEMS and laser IMUs and weapon integrated precision timekeeping. Precision target location sensors across EM/optical spectrum and signal/image track processors both on and off-board surface, air, and gun launched weapons. Network, computational, and mission planning technology for precision targeting. Aircraft and weapon airframe and propulsion technologies to counter emerging threat spectrum.
Littoral ASW (LASW)	50.00	Significantly increase ASW applied research to provide technology to meet the 2015 threat. Develop components of advanced off-board distributed systems. Develop technology for cross platform sensor level fusion and estimating performance of advanced sensors. Demonstrate airborne electromagnetic detection system for Multi-Mode Aircraft and Unmanned Air Vehicles (UAVs). Demonstrate wide area cueing using advanced electro-optic/infrared systems and high altitude long endurance UAVs. Demonstrate components for transition to light weight torpedo plan product improvement program.
MANTECH	5.50	Although Navy previously committed to Congress to funding the program at $60 million per year, PB04 (fiscal year 2004) request is only $54.5 million.
Academic Research Fleet Renewal—UNOLS.	80.00	There is a pressing need to modernize the country's aging Academic Oceanographic Research Fleet through an orderly, phased renewal plan with construction of 4 new Ocean Class ships and 3 new Regional Class ships over the next 10 years.
Seabasing/STOM	24.00	Logistics planning and execution from CONUS to Seabase and Objective. Develop capabilities to support command and control on the move from the Seabase to the Objective. Naval Surface Fire Support improvements in range, projectiles/fusing, precision, and volume of fire. Ammunition resupply of surface combatants.
Organic MCM	6.00	Protective Mining—Protect sea basing. Integrated joint command and control for multiple, cooperating unmanned systems.
Mine Countermeasures Reconnaissance.	30.00	Develop clandestine approaches to countermeasures networked minehunting using fully reconnaissance autonomous, cooperative vehicles with classification sensors reporting tactical control ID indicators. Develop and demonstrate mission capability package for LCS using coordinated swarms of autonomous, interactive, underwater vehicles engaged in networked minehunting.
Total	427.70	

General HAGEE. The Marine Corps looks for innovation in four broad areas to address future challenges, e.g., transformational technologies. Our commitment to S&T, rooted in the axiom that forward thinking now equates to tangible transformation today, manifests as programmed growth in fiscal year 2004. Promising projects such as the Expeditionary Tactical Communications System, the Joint High Speed Vessel, and the Target Handoff System (experimental) support, on the move command and control, Sea-Basing and Sea Strike respectively. We are also transforming the way we do business through proactive joint experimentation. To support this effort, three Joint Concept Development and Experimentation (JCDE) divisions were established and have already leveraged concepts amongst the Services. While JCDE is adequately funded, have noted the benefits to be achieved by increasing the funding for this effort and the Center for Emerging Threats and Opportunities.

Attached you will find a detailed listing of unfunded fiscal year 2004 Department of the Navy S&T programs. (See Admiral Clark's response to same question.) These programs support our transformational efforts.

General JUMPER. One of the most important efforts currently ongoing within our S&T program is the work we're doing to enhance the Battlefield Air Operations (BAO) kit equipment carried by the Air Force Special Tactics Controllers who perform operations deep in enemy territory to help identify who the terrorists are, where their weapons are located, and who the innocent civilians are. Using very rapid spirals to speed development, prototyping, testing, production, and fielding, the Air Force is working to realize significant enhancements to these kits, while reducing weight and size. The following list is a representative summary of high priority S&T efforts, including enhancements to the BAO kit, for which the Air Force could use additional funding in fiscal year 2004. A more detailed, comprehensive list will be provided to the Senate Armed Services Professional Staff as requested.

Effort	[In millions of dollars]
BAO Kit Enhancements	13.000
Basic Research for Nanosatellites, Space Control, Command and Control, and Super Energetic Propellants	8.000
Intelligence, Surveillance, and Reconnaissance (ISR) Automation for Time-Critical Targeting	11.800
Joint Battlespace Infosphere	13.900
Electronically Steerable Array and Space-Based Radar On-Board Processing	10.000
Advanced Payload—Hard and Deeply Buried Targets	3.000
Commanders' Decision Aids for Predictive Battlespace Awareness	3.500
Laser Infrared Flyout Experiment Advanced Technology Demonstration	7.400
Denied Area Surveillance	1.000
Airborne Active Denial System Integrated Concept	35.860
Force Protection	3.000
Human Systems Countermeasures to Future Laser Threats	3.100
Targets Under Trees	3.800
Effects-Based Operations	4.000

QUESTIONS SUBMITTED BY SENATOR DANIEL K. AKAKA

OVERSEAS BASING

45. Senator AKAKA. General Shinseki, Admiral Clark, General Hagee, and General Jumper, what level of involvement have each of you had with the series of Overseas Basing Studies currently being conducted regarding our overseas presence?

General SHINSEKI. The Secretary of the Army has directed the Army staff to conduct an extensive review of Army Strategic Posture looking out over the next 10 years. The intent is to ensure that the Army is able to meet all the requirements of the combatant commanders and is well positioned to seamlessly transform to the Objective Force. Concurrently, the Secretary of Defense has directed that his staff, the Joint Staff, and the combatant commanders review future posture and overseas basing. The Army is working in coordination with these efforts to ensure the synchronization necessary to meet the Army's responsibilities for flexible power projection and sustained land dominance as part of the joint force. The Army will continue to work closely with the combatant commanders, the Joint Staff, and the Office of the Secretary of Defense to ensure we have the appropriate posture and force structure to meet both the current strategic requirements and the many future challenges to our national security.

Admiral CLARK. I have been briefed on these studies throughout their development. In the specific instance of the SECDEF Overseas Basing Requirements Study completed in December 2002, the Navy assisted in shaping the effort through a Flag/General Officer Steering Committee and through a staff-level working group.

I have also been briefed on the findings of the Integrated Global Presence and Basing study initiated in March 2003 by the Secretary of Defense. I expect the results of this study to be published in October 2003.

General HAGEE. The Secretary of Defense has requested the examination of global positioning of forces, capabilities, and supporting infrastructure be accelerated. He has tasked the Under Secretary of Defense for Policy, the Chairman of the Joint Chiefs of Staff, and the combatant commanders with developing, by July 1, 2003, a comprehensive and integrated presence and basing strategy looking out 10 years.

The United States Marine corps is participating in this examination, providing input at both the Service level to the Joint staff and at the component level to the combatant commanders. This work is being coordinated with other ongoing efforts within the Department of defense including the directed study on Oversees Basing

Requirements (OBRS, 2002), the ongoing JROC directed Overseas Presence Study (OPS,) the ongoing Joint Staff Operational Availability Study (OA), and the ongoing Deputy Assistant Secretary of Defense (Policy) analysis of overseas presence requirements.

General JUMPER. We have been engaged with OSD, the Joint Staff, the Combatant Commands, and other Services over the past 1½ years with these basing studies. We will continue to stay engaged as basing options are further developed and will work with the Combatant Commands to implement the options the Secretary of Defense decides upon.

46. Senator AKAKA. General Shinseki, Admiral Clark, General Hagee, and General Jumper, in evaluating our overseas force structure in both Europe and Asia, what options are being considered if we should choose to change our current structure? What would each of these options require from a facilities and infrastructure standpoint?

General SHINSEKI. The Army and its regional Army Service Component Commanders are working with the Office of the Secretary of Defense, the Joint Staff, and each of the geographic combatant commanders and staffs to determine the global posture of engagement which best supports our national security strategy. The Army will work to determine the cost or need for additional facilities in the continental United States once these discussions yield greater fidelity for the potential courses of action. We do know that the United States and the Republic of Korea have agreed to a number of changes under the March 25, 2002, Land Partnership Program (LPP). This plan reduces the number of major installations from 41 to 23, but does not change the number of Army forces based on the peninsula. However, this action could facilitate the reduction of forces on the peninsula as the LPP takes effect between now and 2011.

Admiral CLARK. In August 2001, the Secretary of Defense directed all combatant commanders to review overseas basing requirements and to examine opportunities for joint use of facilities and land by the Services, consolidate infrastructure, and enhance training. The Department of Defense continues to examine these opportunities within the context of a global strategy. This will include an assessment of facilities and infrastructure needs, and should be completed by October 2003.

General HAGEE. We are not planning any significant force structure changes in Europe or Asia. Our intent is, and always has been, to continue to support the regional combatant commanders in accordance with our Title 10 responsibilities.

General JUMPER. We have infrastructure—enduring in value and strategically located—that we would like to maintain in both Europe and Asia. We are pursuing a network of Main Operating Bases (MOB), Forward Operating Bases (FOB), and Forward Operating Locations (FOL) to support our expeditionary air force. This architecture will enhance our access to areas adversaries seek to deny, distribute our forward presence, and increase airbase availability by using bases in receptive host nations.

In a few cases we may move some of our forces to new MOB; this will likely require extensive infrastructure improvements. In contrast to our MOBs, we plan to develop more FOBs, bases with a few, but adequate number of permanently stationed personnel to keep them "warm." Accordingly, we will improve or develop only a limited amount of infrastructure at such bases. Using a rotational force, we would then periodically deploy to these FOBs, using such opportunities to familiarize our forces with the FOBs and exercise with our friends and allies. Complementing our MOBs and FOBs, we will have designated FOLs with minimal infrastructure and no permanently stationed active duty personnel. These FOLs are designed for contingency use. As such, incoming units will bring their own support equipment.

47. Senator AKAKA. General Shinseki, Admiral Clark, General Hagee, and General Jumper, could each of you please discuss the increasing strategic role that both Hawaii and Guam play in maintaining our forward presence in the Pacific? What additional requirements might we see for Hawaii and Guam in support of future operations?

General SHINSEKI. East Asia will continue to be a region of strategic importance. Given the vast expanse of the Pacific Ocean and the great distances between the continental United States (CONUS) and East Asia, stationing Army forces forward is absolutely critical to reducing response time for potential contingency operations in the region and conducting operations in support of Pacific Command's (PACOM) theater security cooperation plans. Hawaii remains critical to supporting potential operations in Korea and Southeast Asia. Maintaining combat ready forces in Hawaii, such as the 25th Infantry Division, reduces the deployment time to each of these regions by more than 20 percent compared to CONUS-based forces. Addition-

ally, the shorter deployment legs help us conduct sustained operations throughout the Pacific.

There are approximately 28,000 soldiers stationed in Hawaii, about one-third of whom are Reserve component personnel. Headquarters, U.S. Army Pacific, co-located with Headquarters, PACOM, provides Title X support to PACOM and manages Army operations throughout the Pacific region outside of Korea. The 25th Infantry Division runs a Division Ready Brigade cycle to provide PACOM with a ground force ready and deployable for any contingency. The 25th Infantry Division participates in numerous training activities throughout the region to enhance military cooperation with important allies such as Japan, Australia, the Philippines, and Thailand. The 45th Corps Support Group provides continuous support for units and personnel performing critical missions, whether they are major operations such as Operation Enduring Freedom-Philippines, exercises such as Cobra Gold (Thailand), or small unit deployments.

In the future, Hawaii will continue to play a critical role in support of U.S. military objectives in the Pacific. As proposed for congressional funding in the fiscal year 2004 Army budget submission, we plan to transform one brigade of the 25th Infantry Division into a Stryker Brigade Combat Team (SBCT) beginning in fiscal year 2005. This transformed SBCT will provide PACOM with a more lethal and survivable force, deployable from a forward base.

Guam's location provides the Army with a key support base for operations in the East Asian littoral. While there are no active Army combat forces stationed on Guam, the Guam Army National Guard supports PACOM's missions by providing critical enabler units for deployments throughout his area of responsibility. Guam also provides important logistical and maintenance support for the Army vessels that make up the Army prepositioned stocks afloat fleet.

In the future, we anticipate that Guam will continue to play a key role in support of Army forces deployed throughout the Western Pacific. With its airfield, seaport, and strategic location, Guam can serve as an intermediate staging base to support contingencies in the East Asian littoral, as well as in Northeast Asia.

As a State and territory of the United States, Hawaii and Guam, respectively, provide secure locations to support Army forces operating in the Western Pacific. Together with the other armed services, the Army continues to provide critical land component capabilities for use in PACOM's Joint Mission Force concept.

Admiral CLARK. The Navy has long recognized the strategic value played by both Guam and Hawaii in support of the joint force. Both are essential to maintaining the U.S. forward naval presence within the Asia Pacific Rim and significantly improve the operational flexibility and efficiency of naval forces.

Together with the Office of the Secretary of Defense and the Marine Corps, we are studying various options for both Guam and Hawaii as we move forward with the Navy's new Global Concept of Operations (CONOPs). Under the Global CONOPs, today's carrier battle groups (CVBGs) and amphibious ready groups (ARGs) will be re-configured into carrier strike groups (CSGs) and expeditionary strike groups (ESGs). In addition, the CONOPs also envisions surface action groups (SAGs) devoted to theater ballistic missile defense. I can assure you that both Guam and Hawaii are being reviewed in various contexts to ascertain the best way of maximizing the forward deterrent value of these forces.

The Navy has already taken steps to improve its forward deployed posture by implementing a plan to homeport three fast attack submarines (SSNs) in Guam. Submarine Squadron 15 was established in Guam in fiscal year 2002, the U.S.S. *City of Corpus Christi* arrived in October 2002, the U.S.S. *San Francisco* arrived in December 2002, and the U.S.S. *Houston* is to arrive in 2004. Forward basing SSNs in Guam reduces transit time to/from station, equating to greater time "in theater" and additional mission days to fulfill national and fleet requirements. Guam is 2,100 nautical miles (7 full steaming days) closer to the Arabian Gulf than is Norfolk and Pearl Harbor, as such, it is uniquely positioned to support continued naval forward presence in the Pacific in the future. Additionally, its status as a U.S. territory allows storage and loading of prepositioned war munitions without the consent of a foreign government. Moreover, Guam can be used as an intermediate staging base and safe haven for potential non-combatant evacuation operations within the Pacific theater.

Finally, both Guam and Hawaii do not have any political-military or diplomatic issues to address. Guam, as a U.S. territory, is the only guaranteed failsafe against the loss of basing rights in East Asia.

Hawaii is home to the Commander, U.S. Pacific Fleet, U.S. Submarine Force, three submarine squadrons and their 25 submarines assigned to Pearl Harbor. COMNAVMIDPAC headquarters and numerous surface warships are homeported in Pearl Harbor, Hawaii. The Pacific Fleet's Maritime Surveillance and Reconnaissance

Commander's headquarters (with four VP and VPU (P–3) squadrons) are located at MCB Kaneohe Bay. These forces are approximately 1 week closer to the Asia Pacific region than are West Coast forces, and thus, add flexibility/quicker response times to mission essential tasking. Pearl Harbor is the largest U.S. naval base outside of the continental United States. Consideration is being given to a proposal to relocate additional warships from the West Coast to Pearl Harbor to take advantage of Hawaii's proximity to the WESTPAC theater of operations. However, considerable infrastructure would be required to make such a move. Lastly, NCTAMS PAC is the main hub for Pacific Command (Joint) communications and is slated to be a teleport.

General HAGEE. The threat to peace and security within the Pacific region has fundamentally changed. While we still must deal with the traditional forces of potentially aggressive nations, we now must also deal with terrorism, rogue states employing asymmetric tactics, and weapons of mass destruction. We must be capable of dealing with all of these dangers. We must be able to assure our allies and friends; dissuade military competition; deter threats against U.S. interests and the interests of our friends; and decisively defeat any adversary who is not or cannot be deterred.

To be more adaptable and responsive to these emerging threats and challenges, our Pacific Marine forces are now working with the Commander of the Pacific Command in examining new ways of organizing, employing, and supporting our forces. While this project is still in its initial stages, there are several key emergent Marine Corps concepts that highlight the importance of Hawaii and Guam within our future Pacific security structure.

Our forward-deployed Marine forces will be truly expeditionary. They will be potent, agile, and mobile forces that can gain and maintain strategic access, rely on advanced sea basing, and conduct effective Theater Security Cooperation. These forces will require a few major bases, or hubs, to support their forward presence. Extending from these hubs, we envision smaller forward operating bases to support our amphibious forces with a rotational force presence. Ideally, extending even further throughout the region would be minimally manned training areas capable of providing up to battalion-sized combined training. To support these forward-based and forward-deployed naval forces, we will require in-theater logistics distribution centers. Lastly, we will continue to require sites for the Pacific-based future Maritime Pre-positioned Force (MPF(F)) squadron. It is also clearly evident that this basing concept will require adequate strategic airlift and sealift to deploy and sustain our forces, and adequate intratheater mobility assets to move forces and supplies within theater.

Even in this early stage of concept development, it is clear that both Hawaii and Guam, strategically positioned and having vital infrastructure, will play key roles potentially augmenting our existing facilities in Japan in supporting the basing, sustaining, and training of our forces deployed across the Pacific.

General JUMPER. We continue to value Hawaii's strategic roll in the Pacific. There is approximately $60 million in the fiscal year 2004 President's budget for new military construction to support the eight C–17s that we will station at Hickam AFB in fiscal year 2006.

Guam's strategic importance is becoming evident as we increase our focus on the global war on terrorism and other instability in the East Asian Littoral[1] (EAL). We expect to develop it into the power projection and logistics hub for the region with permanently based and rotational forces.

48. Senator AKAKA. General Shinseki, Admiral Clark, General Hagee, and General Jumper, could each of you please detail the support the U.S. receives through the host nation funded construction programs such as the Japanese Facilities Improvement Project program in Japan and the Funded Construction Program and Land Partnership Plan in Korea? What is the status of each of these programs and how do we currently benefit from these partnerships?

General SHINSEKI. The Host Nation Funded Construction Program (HNFCP) consists of the Facilities Improvement Program (FIP) in Japan, the Payment-in-Kind (PIK) program in Germany, the Combined Defense Improvement Program (CDIP) in Korea, and the Republic of Korea Funded Construction (ROKFC) program in Korea.

The primary HNFCP is the FIP, which has provided about $700 million of construction per year. The program was implemented in 1979 and over the past 20

[1] East Asian Littoral is defined as the region stretching from south of Japan though Australia and into the Bay of Bengal.

years, the Government of Japan has built $19 billion of new quality of life and operational facilities for our U.S. service members.

The PIK program awarded $202 million in construction projects from fiscal year 1994 through 2001. There is an additional $33 million planned for award in fiscal year 2003 and 2004.

In Korea, the CDIP was initiated in 1982 by the Republic of Korea (ROK) to share the financial burden of maintaining U.S. forces in Korea. The CDIP funds projects that support only warfighting and operational facilities and total about $50+ million of construction per year.

The ROKFC program was established in 1991 it provides well-being facilities, infrastructure, as well as warfighting projects. The ROKFC program funds about $135+ million of construction per year. In 2002, the U.S. forces Korea (USFK) and the Republic of Korea Minister of National Defense signed an agreement for a Land Partnership Plan (LPP). The LPP is a comprehensive plan for more efficient and effective stationing of U.S. forces in Korea. The LPP increases readiness and force protection; gains efficiencies; improves quality of life for U.S. forces in Korea; resolves civil petitions; facilitates regional development; and strengthens the ROK-U.S. alliance. The LPP will cost approximately $2.4 billion over the next 10 years. It allows USFK to close and consolidate some major installations by the end of 2011. The ROK will fund an estimated $1.3 billion to construct replacement facilities; purchase more than 1,200 acres for new grants; expand ROK military training area for U.S. use; and purchase safety easements with USFK exclusive grants. The U.S. will return 33,000 acres of land to the ROK government and is expected to fund about $1.1 billion to build replacement facilities for the installations it plans to relocate or close. The LPP allows the U.S. forces to train more efficiently alongside ROK forces. It will optimize land use in one of the world's most densely populated and congested countries and station U.S. forces where they can best accomplish their assigned mission.

Admiral CLARK. The Navy receives Host Nation Funded Construction (Burden Sharing) support from both Japan and Korea. The Japanese Facilities Improvement Program is funded by the Japanese Defense Agency and currently supports four categories of projects: force structure or mission increases, family housing and community support, Japanese initiatives including environmental and safety issues, and service initiatives. In Korea, two cost sharing programs are in use including the Combined Defense Improvement Program (CDIP) and the ROKCF. The CDIP supports construction of facilities related to improved combat operations, war reserves, and combined U.S./Korea operations. The ROKFC supports quality of life and sole U.S. use projects.

All of these programs are active and help share the financial burden of a forward deployed posture. In fiscal year 2002 we received $199 million in support from the JFIP program to include $80 million for improvements to the Yokosuka Carrier Pier, and $4.5 million from ROKCF to include a $3.8 million medical clinic in Chinhae.

General HAGEE. The Marine Corps portion of the 2003 Japanese FIP is $142.1 million. Generally, the FIP provides housing, community support, environmental and safety deficiency abatement, and other non-warfighting (i.e., other than weapons, ammunition and fuel storage) facilities. FIP has been very successful in supporting improved quality of life/quality of workplace infrastructure since the program's inception in 1979.

General JUMPER. The Air Force receives support, in the form of host-nation funded construction, from NATO, Japan, and Korea. In recent years, that support has averaged roughly $300 million per year. The funds provided by these countries are used to construct facilities that directly support Air Force missions, as well as facilities that support quality of life for Service members and their families stationed overseas.

For example, the NATO contribution helps offset construction supporting the Air Force's roles in the NATO mission. The Japan Facilities Improvement Program (JFIP) supports "defensive" warfighting capabilities, such as aircraft shelters, and may be used to replace "offensive" capability facilities that predate 1979. The Korean CDIP funds combined Republic of Korea-United States warfighting requirements; while the ROKCF program funds mission support and quality-of-life requirements.

In addition, under the Rhein Main transfer program, Germany is helping to pay for facility construction at Ramstein and Spangdahlem Air Bases necessary to relocate the missions currently at Rhein Main Air Base. In total, Germany is investing nearly $400 million to help pay for construction associated with this relocation. The majority of this construction will occur in 2004 and 2005.

Korea's LPP is an initiative supporting the consolidation of U.S. installations in the Republic of Korea. USFK will vacate land no longer needed, due to force realignment on the Korean peninsula. At the same time, the Korean government will give USFK additional land around military installations receiving realigned forces. The U.S. Army is the major player in LPP. However, the Air Force is benefiting from LPP at Osan Air Base, where we are adding acreage to the installation to support housing construction.

49. Senator AKAKA. General Shinseki, Admiral Clark, General Hagee, and General Jumper, please provide cost estimates for the additional resources that would be required, on a continuing basis, to construct and maintain facilities in the continental United States that would be lost if we eliminated a permanent force structure in Europe and Japan.

General SHINSEKI. The Army and its regional Army Service Component Commanders are working with the Office of the Secretary of Defense, the Joint Staff, and each of the geographic combatant commanders and staffs to determine the global posture of engagement which best supports our national security strategy. The Army will work to determine the cost or need for additional facilities in the continental United States once these discussions yield greater fidelity for the potential courses of action.

Admiral CLARK. The Department of Defense is developing a comprehensive basing strategy, including an assessment of the implications for facilities and infrastructure needs, that should be completed by October 2003. Until the results of this study are known, it would be premature to speculate on which commands or individual units, if any, should be relocated to the continental United States, where they might be based, or what the associated costs would be.

General HAGEE. The plant replacement value of Marine Corps facilities in Japan in fiscal year 2001 is $8.7 billion. In the absence of a force reduction and since the Marine Corps has limited underutilized space in the United States we expect an initial investment of $8.7 billion would be required to replace the plant provided by the Japanese in the United States. In addition, we would also need to increase our sustainment by at least $40 million each year to replace the labor provided by the Japanese government in order to maintain the new facilities in the United States. The Marine Corps has no permanent force structure in Europe.

General JUMPER. We feel that maintaining our presence in Europe and Japan is crucial to the United States' national security and stability in both regions, therefore, we have not considered completely withdrawing U.S. Air Forces from these regions nor studied how much it would cost to do so.

BASE OPERATIONS FUNDING SHORTFALL

50. Senator AKAKA. General Shinseki, Admiral Clark, and General Hagee, I am concerned about the reductions in base operations funds in each of your Service's budgets. Can you please comment on what you feel the impact of these reductions will be from a broader readiness and a morale perspective?

General SHINSEKI. Base operations support funding for fiscal year 2004 is $5.8 billion and represents only 65 percent of our requirements. The Army took some risk by funding higher priorities in force protection and replenishing depleted peacetime spares inventories to eliminate a significant readiness issue. We will continue to provide quality services to our soldiers and their families but in some instances the quantity of services will be reduced.

Admiral CLARK. I expect no impact on shore installation readiness, nor do I anticipate any impact on morale. The fiscal year 2004 budget is aligned with previous years in terms of producing a constant level of capability. In our effort to find efficiencies, we are making organizational and process changes in the management and delivery of installation support. Key to this effort is the establishment of a single consolidated organization, Commander, Navy Installations (CNI), whose core mission is management and operation of shore installations. Our fiscal year 2004 budget reflects those anticipated efficiencies.

General HAGEE. The Marine Corps strives to preserve program stability while balancing competing requirements of modernization, investment, and infrastructure. Given these competing requirements in a fiscally constrained environment, our base operations account has been funded to the optimum level without any near-term degradation to readiness or morale.

STRYKER BRIGADE COMBAT TEAM

51. Senator AKAKA. General Shinseki, could you outline the current plans for the 5th Stryker Brigade Combat Team (SBCT) planned for Hawaii?

General SHINSEKI. The Army intends to field an SBCT in Hawaii. We have resourced all six SBCTs to contribute to fulfilling the "1–4–2–1" defense construct and national security requirements; however, at this time, the Secretary of Defense has only authorized the procurement of the first four brigades. As directed by the Office of the Secretary of Defense, the Army will provide the Secretary of Defense with an analysis of potential enhancements for Stryker Brigades five and six.

Pending Secretary of Defense approval, fielding for the 2nd Brigade, 25th Infantry Division, in Hawaii begins in October 2005 with the unit achieving initial operational capability in the summer of 2007.

52. Senator AKAKA. General Shinseki, what are the military construction requirements needed to support the expected fiscal year 2005 implementation of the SBCT?

General SHINSEKI. Based on current planning, the Hawaii SBCT reaches initial operational capability in fiscal year 2007. Currently known fiscal year 2005 to fiscal year 2009 Army Military Construction requirements that support the Hawaii transformation and combat systems total about $517 million. Additionally, the Army's fiscal year 2004 budget includes $71 million for military construction in Hawaii that is required to support both Legacy Force requirements that are currently not being met and transformation.

NAVY INSTALLATION COMMAND

53. Senator AKAKA. Admiral Clark, in your written testimony you discuss the stand up of the Navy Installation Command planned for October 2003 with an estimated cost savings to the Navy of $1.6 billion over the next 6 years. Can you detail how these savings are expected to be achieved?

Admiral CLARK. We anticipate savings in personnel, facilities, and base-operational costs due to:

- Streamlining of shore installation management procedures and policies.
- Elimination of redundant HQ management functions and cost.
- Greater competition for contract work from aggregating functions.
- Simplification of the budgeting and funding process.
- Increased consistency in standards and levels of performance for base operations across Navy installations.
- More focused support from contractors and support organizations.
- Expansion of regional management concept in providing installation support.
- Greater use of Information Technology tools to increase efficiency.

54. Senator AKAKA. Admiral Clark, as you are aware, the Army undertook a similar initiative, the Installation Management Agency (IMA), which stood up in October 2002. What lessons have you drawn from and do you expect to draw from the Army's experiences with the IMA? What similarities and differences are there across the two Services that might point either to similar practices or the need for different approaches?

Admiral CLARK. We have been in regular dialogue with Army over the past year including four face-to-face meetings with senior IMA leadership, and have drawn the following lessons:

First, it is essential to separate installation funding from mission funding. This eliminates the problem of installation funding migrating to mission requirements for contingency or other emergent actions, and thereby, adversely impacting installation support services to the fleet.

Second, reducing the number of major commanders involved in running shore installations can generate efficiencies.

Third, a single installation commander affords Navy the opportunity to consolidate the best in installation management expertise.

Fourth, a single installation command allows major commanders to focus on primary missions rather than the means.

We have several similarities between our Services in this area as installations in both Services generally perform similar functions. In the past, we both had multiple major commanders doing installation management functions while mission and BOS funding were programmed, budgeted, and allocated as a single operating budget.

Our differences will not affect our approach. Navy moved toward claimant consolidation and regionalization in 1997/1998 by reducing the number of installation

claimants from 18 to 8. Army has an additional layer (for policy and resourcing) between the IMA (for execution) and Army Chief of Staff. Navy CNI combines policy, resourcing, and execution and will report directly to the CNO. Navy has identified 28 installation management functions while the Army has 95.

Based upon these considerations, we have adopted a similar approach to installation management by standing up CNI on 1 October 2003.

READINESS IMPACT OF ACCEPTING SHORT-TERM RISKS TO FUND MODERNIZATION

55. Senator AKAKA. General Shinseki, as both Secretary of Defense Rumsfeld and you have acknowledged, the fiscal year 2004 budget accepts short-term risks in order to more fully fund modernization efforts. In your view, what are the immediate readiness impacts of this strategy, especially with the high tempo our military forces are currently experiencing?

General SHINSEKI. The Army continues to make difficult choices and implement changes in its investment plans and resourcing efforts. During the fiscal year 2004–2009 program/budget process, the Army modified its overall transformation plan by further reducing near-term efforts to support achievement of longer-term goals. These reductions are made in the context of a careful and prudent balance between immediate operational needs, e.g., the demands of homeland security and the global war on terrorism and the imperatives of Army transformation. In general, funding is increased for programs that are "clearly transformational" and support Defense transformation goals. The Army has chosen to manage risk in the modernization of its current force and the associated mid-term warfighting readiness. This risk takes the form of more selective modernization and recapitalization efforts for the current force, while still retaining sufficient efforts to ensure essential readiness requirements.

The immediate readiness impacts of this strategy are minimal. Another metric for current readiness is the amount of funding provided to ground and air operational tempo (OPTEMPO). For fiscal year 2004, ground and air OPTEMPO are funded to provide the resources to sustain Army readiness for peacetime operations. The potential war in Iraq and the ongoing global war on terrorism have created additional requirements that will require passage of a 2004 supplemental to ensure the continued readiness of our forces.

COMBAT AIR PATROLS

56. Senator AKAKA. General Jumper, The Washington Post has been reporting that the U.S. Customs Service has begun to assist the Air Force in conducting combat air patrol, or CAP missions. I understand, however, that this support is fairly limited. Can you give us a broad sense of the percentage of forces engaged on an ongoing basis in conducting CAP missions, and how much that might increase if we were to go to war in Iraq?

General JUMPER. The Air Force and the U.S. Customs Service have a long history of working closely together, but there are important distinctions between our respective missions and capabilities. We expect Custom's role will evolve as part of their transition into the Department of Homeland Security, but we expect their focus will remain primarily law enforcement. They are well equipped to respond to general aviation aircraft that violate temporary flight restrictions without additional indications of hostile intentions. However, they have no capability to defend against a commandeered airliner like we experienced on September 11. Air defense forces, in contrast, are there to provide a last-ditch defensive capability against any type of airborne threat, but are neither equipped nor authorized to enforce laws. Today, both Customs and the Air Force have personnel sitting side-by-side 24 hours a day in the National Capitol Region Coordination Center, sharing data and coordinating their combined response.

Prior to operations beginning in Iraq, approximately 0.7 percent of our active duty USAF personnel (2,810) were required to support air defense operations, including the CAP. Today that number has grown to just over 0.8 percent (3,000) with the addition of four alert sites. Should conditions indicate, the number could rapidly grow to over 1.5 percent (6,000) to support the maximum planned defensive posture.

57. Senator AKAKA. General Jumper, is the Air Force exploring other options, such as expanding our cooperation with Customs, to help reduce the burden over the long term?

General JUMPER. The Air Force is working directly with Customs, the Secret Service, the Transportation Security Administration, Federal Agency Administration,

and others in establishing the Interagency Homeland Air Security Coordination Center. As better aviation security procedures are implemented and intelligence information shared and fused between agencies, we expect the requirements for CAP will be reduced. However, we also believe it unlikely that the threat of an asymmetric air attack will be eliminated in the immediate future. In light of that, we are working to put the Noble Eagle Level 5 forces into a sustainable posture that will eliminate the need for continued mobilization of the Reserve component.

QUESTIONS SUBMITTED BY SENATOR BILL NELSON

END STRENGTH AND MOBILIZATION OF GUARD AND RESERVE

58. Senator BILL NELSON. General Shinseki, Admiral Clark, General Hagee, and General Jumper, each of the armed services is feeling significant pressure from the pace of current operations and the ongoing requirements of forward presence, peace operations, and training requirements. The Services do not have the numbers of personnel they need in the skills required to sustain the force for worldwide commitments—and I expect commitments to increase as the war on terror expands. This is a high-risk strategy—pushing end strength problems onto the back of the Guard and Reserve could unhinge the entire "reserve system." Does the Nation have the Active Forces necessary for what we are doing now and what we are expected to do over the next 10 to 20 years to secure the Nation?

General SHINSEKI. This question addresses a particularly vexing challenge for the Army, requiring a multi-faceted analysis. As I have previously testified, we have an Army that is too small for its mission profile. Emerging requirements in support of the global war on terrorism, uncertainties regarding long-term operational requirements, and the requirement to sustain existing ongoing small-scale contingencies while simultaneously transforming the Army certainly warrant a review of our entire force structure. The Army is particularly sensitive to the tremendous demands currently being placed on our Reserve component soldiers in their selfless service to the Nation.

The post-September 11 environment has seen a tremendous increase in the number of Reserve component soldiers mobilized in support of ongoing operations—current steady state is approximately 30,000. As part of Total Army Analysis 2011 (TAA–11), the Army is reviewing its existing force structure, specifically focused toward facilitating transformation to an Objective Force capability. A critical charter of TAA–11 is to review the existing force structure, both active and Reserve, to determine the correct allocation of forces in support of the National Security Strategy and Defense and Transformation guidance. Paramount to this review will be studies focused on determining the correct balance of Active and Reserve Forces to ensure the Army is capable of meeting its responsibility to the Nation.

Admiral CLARK. The Navy has sufficient Active-Duty Forces. In fact, we are seeking to reduce the number of Active-Duty Forces in the coming years. That said, we have always relied upon Reserves to complement the Active Force in times of conflict, and the global war on terror is no exception. Reserves have filled—and are continuing to fill—positions requiring specific skill sets that may not reside in the Active Force. We will continue to take the steps needed to ensure we have the right balance of skill sets in both the active and Reserve components to complete all missions.

General HAGEE. The Marine Corps asked for and was granted an end strength increase of 2,400 marines for fiscal year 2003. This increase was greatly appreciated and came at the right time. The 2,400 marines were used to replenish units depleted by standing up the 4th MEB (MEB Hqtrs/ AT Battalion/Chemical Biological Incident Response Force/Security Force Company). Coinciding with the end strength increase to 175,000, the USMC continues to look at ways to return marines to the operating forces. Military-civilian conversions, A–76, and outsourcing efforts have allowed us to return approximately 900 marines to the operating forces. We believe that 175,000 active component end strength is sufficient to meet our mission requirements.

General JUMPER. This is specifically one of the questions we are trying to answer with a study led by our Air Force Plans and Programs, Directorate of Strategic Planning, Strategy and Defense Integration Division (AF/XPXS) called Operational Assessment. It looks at the suitability of the current active duty and Reserve component mix to meet future operations. The results of the initial study will be briefed to the Office of the Secretary of Defense (OSD) on 31 March 03.

The Air Force's active duty and Reserve component mix is fundamentally sound, both for current and future operations. The Air Force Reserve component (ARC) is

different than the other services. Several points illustrate this contention. On any given day, 35 percent of our Reserve component, or over 66,000 airmen, are on active duty. Our tanker and airlift professionals are now predominately from the Reserve component with approximately 61 percent of our airlift crews and 51 percent of our tanker personnel from the ARC. To meet Combatant Command requirements, our Air Expeditionary Forces use significant ARC forces -25 percent of our aircrews and about 14 percent of expeditionary combat support are from the ARC. Volunteerism is exceptionally high for the initial part of any contingency. For most operations we can meet all requirements with volunteers given sufficient mandays and a clear utilization plan. Additionally, our Reserve component maintains high readiness and ramps up quickly, normally within 72 hours and frequently sooner.

The Operational Availability study validates that the Air Force has very few issues with ARC contribution, even when their capability is required with minimal warning. We clearly have some areas that require further examination to see if adjustments are required. However, the current defense strategy does not invalidate our active duty and Reserve mix. As long as the strategy does not change substantially, we are confident the Air Force will meet its requirements. A fully stressed defense strategy necessitates acceptance of risk in some areas but the Air Force's active duty and Reserve mix is not a primary factor.

59. Senator BILL NELSON. General Shinseki, current and future operations in the global war on terrorism are increasingly requiring mobilization of large numbers of Reserve component forces. Mobilization of these patriotic citizen-soldiers is, of course, a burden on thousands of families and communities nationwide. The Guard and Reserve system is a volunteer system. Looking into the future, what do you think the long-term impact of extended and frequent reserve mobilizations will be on the strength and vitality of the Reserve Forces?

General SHINSEKI. The Army Reserve has been in a continuous state of mobilization since December 1995. Rotations in Bosnia, Kosovo, Kuwait, and mobilizations and deployments are part of Operation Noble Eagle and the war on terrorism have all become part of what it means to serve in the Reserve components today. These recurring deployments have given our units a great deal of experience in being able to mobilize quickly and effectively.

We are sensitive to the stresses of frequent mobilizations and the impacts on retention and recruiting of quality soldiers. Soldiers are committed to their duty and we do not anticipate any long-term impacts on the readiness of the force resultant from the ongoing mobilizations. The concerns of most soldiers, families, and employers are that the mobilizations are as predictable as possible and the duty is directly related to the defense mission of the Nation.

Additionally, the Army Reserve is executing a Federal Reserve Restructuring Initiative that will, among other things, mitigate potential negative effects caused by increased small-scale contingency mobilizations and establish a goal to limit the total time mobilized for individual Army Reserve soldiers to 270 days over any 5-year period.

60. Senator BILL NELSON. General Shinseki, what are the risks to the Guard and Reserve "system" posed by the current pace and scope of mobilizations—what happens if members vote with their feet and leave the Reserves upon release from active duty?

General SHINSEKI. There is a risk of losing highly trained and qualified Reserve component soldiers due to these numerous mobilization requirements. Currently, there are over 65,000 Selected Reserve and 94,000 Army National Guard soldiers mobilized in support of Operation Noble Eagle and the global war on terrorism. This represents close to one-third of our current Selected Reserve strength and 27 percent of Army National Guard strength. If upon demobilization, these individuals decided to leave the Reserve components, it would take several years for the Reserve components to reach its mandated end strength objective, and duty military occupational specialty qualification objectives. However, based on past studies, we are estimating that the Reserve components will lose between 20 and 30 percent of these soldiers. In recognition of this, the Army Reserve is executing a Federal Reserve Restructuring Initiative that will, among other things, establish human resources lifecycle management practices aimed at providing trained and ready units and individuals while mitigating the affects of multiple mobilizations.

61. Senator BILL NELSON. General Shinseki, what about employer backlash?

General SHINSEKI. To date, there is no data or trend to demonstrate that employer backlash will come as a result of the present mobilization. In many discussions with employers concerning employee mobilizations, the employers generally

agree that Guard and Reserve employees are loyal to their companies and will be returned to their previous positions without difficulty. Of note is that employers want planning time both mobilize and demobilize. Also, there is no trend to indicate that multiple mobilizations have a negative impact on employment.

62. Senator BILL NELSON. General Shinseki and General Jumper, the National Guard opposes any relegation of its structure to less than high-end combat capability consistent with Active Forces and essential to a globally relevant strategic Reserve. How will the Army and Air Force preserve and promote this capability within the National Guard?

General SHINSEKI. The Army's transformation process includes the Army National Guard (ARNG). Changes to the ARNG began in 1996 with the ARNG Division Redesign Study (ADRS), a four-phased plan that converts up to 12 ARNG combat brigades-worth of structure into required combat support and combat service support structure. Phase 1 and 2 (fiscal year 1999 to 2007) conversions are ongoing or currently programmed to convert. Phase 3 and 4 requirements will be determined at the conclusion of Total Army Analysis 2011.

In January 2002, the Army began developing a new plan, the Army National Guard Restructuring Initiative (AGRI), in anticipation of publication of the new Defense Strategy. In concert with ADRS, AGRI continues to reshape the ARNG; however, the AGRI concept focuses on converting heavy combat structure to lighter, mobile combat structure that is more relevant to the new defense strategy. AGRI restructures the Army National Guard to meet emerging requirements from homeland security to small-scale contingencies and major combat operations.

AGRI reshapes selected ARNG divisions from a heavy configuration to a more versatile design called the Multi-Functional Division (MFD). Embedded within the MFD is the Mobile Light Brigade (MLB), an infantry-centric organization enhanced with systems that provide commanders with more versatile capabilities over present ARNG divisional brigades. We envision using MLBs in a variety of mission sets to include homeland security, small-scale contingencies, and generating force operations. Additionally, we will begin funding AGRI in this Program Objective Memorandum.

Through the MFD and MLB, AGRI is the Army National Guard's organizational bridge to the Objective Force. With initiatives like this, the ARNG will continue to improve its readiness and maintain a relevant combat force to meet the Nation's requirements.

General JUMPER. The National Guard's quest for continued relevance in the Expeditionary Air Force and in the arena of homeland security is well founded and supported by both the Secretary and myself. The Air National Guard specifically, as a Total Force Partner, continues to provide large portions of the Air Force's combat, combat support, and humanitarian capacity. Their aircraft, aviators, and support teams are second to none and we intend to continue to lean on them as we have in the past. The Air National Guard will remain in the forefront as the Department's capability-based planning construct evolves. Rest assured, that as we organize, train, and equip the Total Air Force for the future, the Air National Guard will be involved in every step of the process.

OPERATION ENDURING FREEDOM

63. Senator BILL NELSON. General Shinseki, U.S. forces in Afghanistan continue to conduct dangerous combat operations. In recent weeks, U.S. forces completed the largest ground battle with al Qaeda and Taliban elements since Operation Anaconda. Are U.S. operations being hampered by the "safe haven" in the ungoverned areas of western Pakistan that al Qaeda and Taliban forces are using?

General SHINSEKI. I believe an operational question such as this is best answered by the Central Command Combatant Commander. As the Chief of Staff of the Army, my responsibility is to provide trained and ready forces to the combatant commander. Afghanistan is still a dangerous place. The Army staff here in the Pentagon carefully monitor the situation there, and maintain good communications with Central Command so we remain ready to provide any support General Franks requests.

64. Senator BILL NELSON. General Shinseki, how do you see U.S. combat operations in Afghanistan evolving over the next year and do you feel the combatant commander has sufficient forces to accomplish the missions laid out by the President?

General SHINSEKI. I believe operational questions such as these are best answered by the Central Command Combatant Commander. The Army has provided all forces

that the combatant commander has requested and is prepared to provide additional forces if required.

The Army currently has 11,600 soldiers conducting operations in Afghanistan, Pakistan, and Uzbekistan. Over the next year the Army's numbers are expected to increase as we send in a team of soldiers to assist in training the Afghanistan National Army. Our goal is to have an Afghanistan National Army capable of providing security and able to defeat any threats to the legitimate government anywhere within the borders of Afghanistan. We will also work with the Afghanistan Minister of Defense and General Staff, which will control Afghanistan National Army operations and activities according to the directives and policies of the Central Government's civilian authorities. We anticipate this training to last 36 months.

SPACE CAPABILITY

65. Senator BILL NELSON. General Jumper, space superiority ranks with air superiority as a top priority. The ability to exploit and assure U.S. access to space assets while denying the same to our adversaries is of great importance. As the ultimate high ground, space provides America with military advantages that cannot be duplicated. With determined exploration and exploitation of space capabilities, we will widen our advantages and set the bar beyond reach of any adversary. How important is assured access to space to our current and future military capability?

General JUMPER. Assured access to space and the space control mission are high priorities as they are critical to success in modern warfare. We must maintain the capability to support the current needs of our warfighters and be in a position to provide for future requirements as our Nation's dependency on space-based assets continues to increase. Not only do our forces need unhampered access to space-based services, but they must be protected from the space-based capabilities of future adversaries. Thus, we must be prepared to deprive an adversary of the benefits of space capabilities when American interests and lives are at stake.

BOMBER FLYING HOURS

66. Senator BILL NELSON. General Jumper, the Air Force has been putting many more flying hours on bombers particularly the B–2 and B–52 than had been contemplated in the bomber study, that study anticipated the B–52 would be available through 2040. Do you see the bomber study conclusions as still being valid?

General JUMPER. The bomber study conclusion is still valid: aggressive modernization of the existing bomber force will provide an equivalent capability to that of a B–2C force at a significantly lower cost.

67. Senator BILL NELSON. General Jumper, do you see a need to look at the possibility of a replacement bomber program that would be in place before 2040?

General JUMPER. No, not at this time, the Air Force does not see the need to accelerate the bomber replacement program. The Long Range Strike Platform (LRSP) study is progressing well and will be completed in early 2004. The objective of the study is to identify the most promising concepts and the required technology investments needed to support a 2012–2015 start of an acquisition program.

JOINT SIMULATION SYSTEM

68. Senator BILL NELSON. General Shinseki, Admiral Clark, General Hagee, and General Jumper, I have been made aware of a Department of Defense (DOD) Program Decision Memorandum (PDM) directing the cancellation of the Joint Simulation System (JSIMS) program in fiscal year 2004 and through the Future Years Defense Program (FYDP). The PDM also directed the cancellation of your related Service simulations, although I understand now that some funding may have been restored in the actual fiscal year 2004 budget request that has arrived in Congress.

I and other members on the Armed Services Committee who care deeply about the pace and scope of efforts to increase joint experimentation, joint training, creation of a standing joint operational headquarters, and joint requirements and acquisition validation, are troubled by this development. The program is intended to provide a joint simulation capability to "integrate" Service simulations allowing for joint training and experimentation at strategic, operational, and tactical levels. This kind of tool is essential to any effort to move the Military Establishment to greater joint training, doctrine and experimentation. What is your position on the cancellation of this program and the impact on your related Service simulation programs?

General SHINSEKI. I do not believe the cancellation of the program will have an impact on joint training. The fiscal year 2003 funding was retained so the program manager could deliver the Block 1 software to the Joint Warfighting Training Center (JWFC) for their use to conduct Joint Task Force (JTF) component level training. This will enable the JWFC to continue further development to support joint training, doctrine, and experimentation. Moreover, the PDM directed an analysis of alternatives (AoA) to identify a cost-effective method of meeting future joint and service training requirements. The impact on the Army simulation is greater, however, because the Block 1 software provides little utility for service use. To this end, I believe it is better for the Army to pursue its own Title X solution with a capability to link with a joint simulation when it has matured.

Admiral CLARK. Navy supports the decision to cancel the Joint Simulation System (JSIMS) for Service use. JSIMS was over budget ($12 million in fiscal year 2003), behind schedule (over 1 year for Block 1 and estimates as much as 5 years for Block 2), and delivering a product that does not meet all of the requirements in the Operational Requirements Document. The impact to the Navy is that funding to support wargaming development has been zeroed. However, unlike the other Services, Navy training requirements for wargaming are directed at a small audience (Battle Group/Amphibious Ready Group Staff only) and therefore do not require the extensive hardware and manpower to run a JSIMS scenario. Navy will reprogram existing funds to upgrade the Enhanced Naval Wargaming System (ENWGS) to meet emerging training requirements. Because the reprogramming is minimal, Navy chose not to reclama the JSIMS portion of the PDM to DOD.

General HAGEE. The Marine Corps continues to support the requirement for an effective joint simulation capability. We concur with the PDM guidance to perform a near-term joint service validation and test of the JSIMS system and support the decision to concurrently perform a formal AOA to the current JSIMS program. However, we are concerned with the adverse impact that the PDM guidance will have on our ability to support, and ultimately replace, our service-specific legacy simulation programs. The version of JSIMS that will be delivered this summer will not meet the Marine Corps Title X training requirements. The elimination of all subsequent JSIMS funding precludes our ability to upgrade the JSIMS to meet these Title X mandated service training requirements. Therefore, we will have to continue to rely upon our aging legacy simulation systems. Since JSIMS was intended to replace our legacy systems the USMC JSIMS funding line had displaced the funding for those legacy systems. The elimination of the Marine Corps JSIMS funding line by the PDM did not include a concomitant provision to provide the funding required to effectively maintain and upgrade our existing training simulation systems and associated infrastructure.

General JUMPER. The Air Force accepts the fiscal trade-offs that led to the OSD PDM decision on the JSIMS program. Impacts to related Air Force simulation programs will require funding adjustments to maintain and improve legacy systems in current use for service and joint training, doctrine and experimentation.

69. Senator BILL NELSON. General Shinseki, Admiral Clark, General Hagee, and General Jumper, are you satisfied that DOD directed the cancellation with a clear understanding of the risks and costs associated with closing the existing program, delaying establishment of a replacement program, and the potential loss of time and skilled modeling and simulation development personnel?

General SHINSEKI. I can only assume that DOD had a clear understanding of the risks and cost for terminating this program. The Army worked very closely with them while they were drafting the PDM. We recommended completing Block 1, assessing the software, and then complete an AoA before deciding on termination. We also strongly recommended the service program funding be retained regardless of the JSIMS decision so that the Services could progress on their own toward their own Title X capability with the intent to link to JSIMS at a later date.

Admiral CLARK. I am satisfied that DOD made a good faith decision on the JSIMS based on management structure, overhead, and nature of the separate development environments. JSIMS has not adhered to basic acquisition principles and shows no potential to deliver a usable product for service use within the Acquisition Program Baseline timeframe. However, the PDM does allow for completion of Block I to address near-term joint training requirements. The PDM-directed AOA should recommend a follow-on program that has the ability to "learn" from JSIMS mistakes and possibly deliver a better product in less time than JSIMS had projected for Block 2.

General HAGEE. We are concerned with the unintended adverse impacts of the guidance embodied by the PDM. As I mentioned earlier, the PDM did not address the funding resources required to sustain our legacy systems in the absence of a

near-term replacement joint simulation system that meets the Marine Corps Title X training requirements. The PDM zeroed out the funding that was designated to support the replacement of our legacy systems and the upgrade of the associated infrastructure. We currently have no future year funding available to support our legacy system sustainment and upgrade requirements.

We are also concerned with the adverse impact on the JSIMS workforce as significant numbers of well-trained and experienced personnel abruptly depart the program. The departure of these critically skilled personnel is negatively impacting the Orlando-based modeling and simulation industry and will delay our ability to reestablish the cohesive joint program team required to assume management of a follow-on joint simulation training system acquisition effort.

General JUMPER. We are satisfied that OSD principals understood the risks and costs implied and that the final decision reflects the difficult fiscal trade-off's often required among competing OSD priorities and the mandate to remain within DOD total obligation authority.

70. Senator BILL NELSON. General Shinseki, Admiral Clark, General Hagee, and General Jumper, are you satisfied that cancellation of the JSIMS program is necessary to accelerate establishment of a Joint National Training Capability or does it complicate achieving such an objective?

General SHINSEKI. Cancellation of the JSIMS program should not complicate achieving a Joint National Training Center (JNTC) capability. Constructive simulations are only a small piece to JNTC effort and current simulations should support near term JNTC requirements until JSIMS is built to meet that requirement.

Admiral CLARK. The cancellation of JSIMS will help accelerate the establishment of a viable joint simulation training capability in the long-term. The program was over budget, overdue, and did not meet the requirements as set forth in the Operational Requirements Document.

General HAGEE. The Marine Corps continues to support the requirement for an effective Joint Simulation Capability as well as the requirement for a Joint National Training Capability. The respective programmatic funding decisions should take into account the complementary nature of these respective capabilities and should not be viewed as an either/or resolution. These capabilities should be developed concurrently while ensuring the maximum effective amount of interoperability.

General JUMPER. The OSD Program Decision Memorandum in question covered a range of resource decisions, including the cancellation of JSIMS and the establishment of JNTC. I would defer to OSD to comment on whether the two decisions were related.

The JSIMS decisions does include provisions for an AOA to determine a way ahead for joint simulation, so it is clear that joint simulation remains a departmental goal.

71. Senator BILL NELSON. General Shinseki, Admiral Clark, General Hagee, and General Jumper, what are your views on the importance of quality modeling and simulation to joint experimentation, joint training, joint doctrine, joint requirements development, and joint acquisition?

General SHINSEKI. Modeling and simulations are absolutely essential to support joint and service training, experimentation, doctrine, requirements development, and acquisition. The Army transformation effort depends on the use of models and simulations to develop emerging systems, assess advance concepts and test doctrine, and provide a greater capability to train commanders and staffs in their warfighting task through constructive simulations.

Admiral CLARK. We must be more efficient in the manner in which we organize, train, and equip our forces. Modeling and simulation will help us to do that by providing a virtual venue for the types of joint training and experimentation required to develop joint requirements and sound doctrine.

That said, JSIMS was not moving effectively toward a solution. It was over budget ($12 million in fiscal year 2003), behind schedule (more than 1 year for Block 1 and as much as 5 years for Block 2), and it would have delivered a product that fails to meet the requirements set forth in the Operational Requirements Document.

General HAGEE. Quality modeling and simulation provide critical enabling capabilities required to effectively achieve the desired goals of joint experimentation, joint training, joint doctrine development, joint requirements development, and joint acquisition. Modeling and simulation tools have proven their efficacy across a variety of applications and functions.

These powerful tools alleviate the limitations associated with physical processes and entities. Simulation-based systems have been proven to reduce costs, increase safety, improve the effectiveness, and accelerate the timeframes required to perform

joint training and experimentation. These tools have been used to facilitate doctrine development and identify weaknesses on which to focus the requirements development process. Joint acquisition programs have repeatedly leveraged the benefits of simulation to achieve reduced procurement costs, reduced live testing requirements, and reduced design cycle times.

Modeling and simulation are core capabilities that will increase in scope and utility in support of our ongoing national training transformation initiatives.

General JUMPER. Quality modeling and simulation continues to be critical to achieving the Revolution in Military Affairs currently in progress and is therefore essential to joint experimentation, training, doctrine development, requirements definition, and acquisition.

72. Senator BILL NELSON. General Shinseki, Admiral Clark, General Hagee, and General Jumper, in your view, what DOD agency should be responsible for the definition of requirements, research, development, testing, evaluation, and procurement of a joint simulation system?

General SHINSEKI. The Joint Forces Command is responsible for the definition of requirements for a joint simulation system. Those requirements are then vetted through the Joint Requirements Oversight Committee for validation.

Admiral CLARK. In my view, operationally focused systems, supporting training, and experimentation activities should be the responsibility of the Chairman of the Joint Chiefs of Staff and of the Commander, Joint Forces Command. They should meet the needs of the Services and the functional and geographic combatant commanders to the maximum extent possible. Systems supporting acquisition, test and evaluation, and research and development should be the responsibility of the applicable DOD office.

General HAGEE. We have learned from our JSIMS experience that the degree of success of a joint acquisition program is dependent upon the authority provided to the central joint program management office over the personnel, material, and funding resources designated in support of that program.

The Joint Forces Command is well positioned to lead a coordinated joint service effort to complete the definition of requirements, research, development, testing, evaluation, and procurement of a joint simulation system. Their personnel resources could be augmented with the requisite level of functional experts and acquisition professionals from the respective services and agencies, to include technical support from the Defense Modeling and Simulation Office.

General JUMPER. Joint Forces Command should be, and is, responsible for compiling and defining the operational requirements of all Warfighting Commands and their Component/Supporting Commands that will use any joint simulation system. The RDT&E and procurement of any potential joint simulation system should be under the direction of OSD(AT&L) and assigned service acquisition executives, or as assigned by OSD to the authority of an established Joint Program Office.

[Whereupon, at 12:38 p.m., the committee adjourned.]

DEPARTMENT OF DEFENSE AUTHORIZATION FOR APPROPRIATIONS FOR FISCAL YEAR 2004

THURSDAY, MARCH 6, 2003

U.S. SENATE,
COMMITTEE ON ARMED SERVICES,
Washington, DC.

SERVICE SECRETARIES

The committee met, pursuant to notice, at 9:34 a.m., in room SD–106, Dirksen Senate Office Building, Senator John Warner (chairman) presiding.

Committee members present: Senators Warner, Inhofe, Roberts, Allard, Collins, Ensign, Talent, Chambliss, Dole, Levin, Reed, Akaka, Bill Nelson, E. Benjamin Nelson, and Clinton.

Committee staff members present: Judith A. Ansley, staff director; Gabriella Eisen, nominations clerk.

Majority staff members present: Brian R. Green, professional staff member; William C. Greenwalt, professional staff member; Carolyn M. Hanna, professional staff member; Ambrose R. Hock, professional staff member; Gregory T. Kiley, professional staff member; Patricia L. Lewis, professional staff member; Thomas L. MacKenzie, professional staff member; Lucian L. Niemeyer, professional staff member; Joseph T. Sixeas, professional staff member; Scott W. Stucky, general counsel; and Richard F. Walsh, counsel.

Minority staff members present: Richard D. DeBobes, Democratic staff director; Daniel J. Cox, Jr., professional staff member; Madelyn R. Creedon, minority counsel; Creighton Greene, professional staff member; Maren R. Leed, professional staff member; Gerald J. Leeling, minority counsel; and Peter K. Levine, minority counsel.

Staff assistants present: Michael N. Berger, Andrew Kent, and Sara R. Mareno.

Committee members' assistants present: Dan Twining, assistant to Senator McCain; John A. Bonsell, assistant to Senator Inhofe; Darren Dick, assistant to Senator Roberts; Douglas Flanders and Jayson Roehl, assistants to Senator Allard; Arch Galloway II, assistant to Senator Sessions; James P. Dohoney, Jr., assistant to Senator Collins; D'Arcy Grisier, assistant to Senator Ensign; Lindsey R. Neas, assistant to Senator Talent; Aleix Jarvis, assistant to Senator Graham; Henry J. Steenstra, assistant to Senator Dole; Russell J. Thomasson, assistant to Senator Cornyn; Barry Gene (B.G.) Wright, assistant to Senator Byrd; Elizabeth King, as-

sistant to Senator Reed; Davelyn Noelani Kalipi, assistant to Senator Akaka; William K. Sutey and Peter A. Contostavlos, assistants to Senator Bill Nelson; Eric Pierce, assistant to Senator Ben Nelson; William Todd Houchins, assistant to Senator Dayton; Andrew Shapiro, assistant to Senator Clinton; and Terri Glaze, assistant to Senator Pryor.

OPENING STATEMENT OF SENATOR JOHN WARNER, CHAIRMAN

Chairman WARNER. Good morning. The committee meets today to receive testimony of the Secretaries on the respective posture of the military Services and President Bush's budget request for fiscal year 2004 and the future years defense program. I was thinking of the gravity of the times that we face today and how Senator Levin and I will have our 25th annual hearing with Service Secretaries this morning. I cannot recall in years past when there has been a more important time to have each of you address the readiness of your forces as they are poised to respond to such orders as the Commander in Chief may direct.

Secretary White, Secretary Roche, we welcome you back before the committee. Secretary Johnson, congratulations on your recognition to become the Acting Secretary of the Navy. We have a great respect for Secretary England for his service to the Department of Defense and, in particular, to the Department of the Navy. We miss him, but he will do well in his challenging assignment of homeland defense.

We look forward to this annual hearing, your personal and professional views on how the budget sets forth the requirements of your respective Services to accomplish their current missions, as well as the requirements to modernize and recapitalize for future missions of this committee's oversight responsibilities and decision-making functions. Indeed, you all deserve a tremendous amount of credit for the service you have provided to our Nation, and most particularly to our men and women in uniform and their families.

Two weeks ago, Senators Levin, Roberts, Rockefeller, and I had the pleasure of visiting our U.S. military personnel in the Persian Gulf region, as well as in Afghanistan and Pakistan. I can assure you that we found our forces ready, focused, well-equipped, and committed to respond to any orders that they may receive. Our forces are poised in support of our diplomatic efforts, and I wish to stress that over and over again, to the extent diplomacy may work. I think all of us still have a glimmer of hope that it could succeed, brought about simply by the forces under your respective departments, together with those of Great Britain and other nations of the coalition of the willing.

That is the backbone of the diplomacy. As we prepare for a possible confrontation with Iraq, if diplomacy fails, our forces continue to fight the global war on terrorism elsewhere. The capture in Pakistan this week of Khalid Sheik Mohammed, the mastermind of the September 11 attack, is another significant blow to the al Qaeda leadership and a reminder that we have not been distracted by events in Iraq and, indeed, our President and the Department of Defense have kept up the high tempo worldwide on terrorism.

North Korea poses a problem, and we note with interest the response that our President has directed there in his efforts again to have a multilateral resolution of that problem between Russia, China, South Korea, and the United States. As we focus on these important threats, we must not forget our deployed forces in Europe or Asia, as well as those operations deployed in the Balkans, Philippines, Colombia, and elsewhere, but that our military personnel are able to successfully conduct such wide-ranging missions is a tribute to their ability, their training, their dedication, and the support they receive from their families. They truly are the best, most capable military force in modern history, so I urge you to sustain and approve that action.

Senator Levin.

STATEMENT OF SENATOR CARL LEVIN

Senator LEVIN. Thank you, Mr. Chairman. We join in welcoming our Service Secretaries. Congratulations, Secretary Johnson, on your appointment. You have been here before, but in a different capacity. Secretary Roche, Secretary White, it is always good to have you two in front of us.

At this momentous time, first and foremost on our mind is whether our forces have everything they need to succeed in their missions, should they be called upon to go to war. That is obviously something which every member of this committee, every Member of Congress, every American, wants to be assured about. As the Chairman mentioned, Senator Rockefeller, Senator Roberts, the Chairman, and I paid a visit to those troops and found them to be of high morale, well-motivated, and well-trained. They feel that they are ready.

We know that the debate about whether to go to war and if so, whether we should go with or without authorization of the United Nations, is part of a debate in a democratic society. They are there to protect a democratic society. All of the debate and discussions are part of that society, I have found them not to be dismayed by the kind of discussion, debate, on the demonstrations that have occurred. They are focused on their duty and their mission, and that they are aware of the fact that should they be called upon to go to war, that they will have the 100 percent support of the American people. Regardless of what the positions are that Americans take and under what conditions we should initiate an attack, there is going to be total unity in this country. Our troops feel it relative to the support for them, should, in fact, they be called upon.

We also meet at a time when we have a budget which we must deal with. This year again, we have authorized significant increases in our defense budget over the last 5 years, where there have been sustained budget increases for the Department of Defense. They have been appropriate. We have been able to protect our readiness and our modernization at the same time we have provided for significant pay increases and benefit improvements for our forces. The men and women of the military deserve no less.

What is left out of this budget, however, are the estimated costs of going to war, war itself, the post-Saddam period, as well as the additional costs of maintaining waging a war on terrorism. The estimates, even with ranges, have not been provided to us, despite

many requests, and these costs are real. They are going to be significant, but they are not included in the budget request.

Some of us feel as a matter of fact that it is irresponsible for us to adopt a budget resolution without knowing what these ranges are. The best case and worst case scenario estimates that will make such a big difference to the budgets this year and in the future are not available to us. At the same time, a budget request is before us which has significant tax cuts, for instance, which will cause a reduction in revenues to the Government at the same time we are on the verge of going to war and having extensive costs in a postwar period.

There will be more on that in the next few days as to whether or not it is wise to proceed with adoption of a budget resolution in the absence of those estimates. At least as important is how much money we spend on national defense and the question of how those dollars should be spent; and that, of course, is the annual quest of this committee. We have to go through the budget request to determine what is the best way to spend the resources which are allocated and dedicated to the defense of this Nation.

Each of our military departments has been undergoing a change since the end of the Cold War. The efforts of the Services to reshape themselves, to respond to the emerging security environment, will succeed if we have strong leadership, and the leadership of the witnesses that we have before us today.

The task of charting a vision and getting the men and women of the Services to accept that vision will strongly depend upon the efforts of the three witnesses before us. I applaud them for their efforts to date and encourage them, as all of us would, to continue to exert that strong leadership to make these reformation efforts a reality.

So, Mr. Chairman, we have some tough choices. There's an increase to the size of the budget. We nonetheless have some major decisions that we must make, and we look forward to hearing from our witnesses today to help us with that process.

Chairman WARNER. Thank you, Senator Levin. The full statement of each witness will be placed into the record. To the extent you wish in your opening remarks, if you would abbreviate, thank you very much. We will start with the senior Service, the United States Army, and Secretary of the Army White.

STATEMENT OF HON. THOMAS E. WHITE, SECRETARY OF THE ARMY

Secretary WHITE. Thank you. Mr. Chairman, Senator Levin, distinguished members of the committee, I am grateful for this opportunity to speak with you today about the Army. Our priorities remain the same: win the global war on terrorism and transformation.

First and foremost, I wish to thank this committee for your continued support of the Army. The fiscal year 2003 budget has allowed us to make significant improvements in many key areas. We have structured our budget request for fiscal year 2004 in the same fashion as fiscal year 2003 based on our top priorities of people, readiness, and transformation.

Thanks to your support, we are making significant strides in the personnel area: the fully funded pay raise for all soldiers, targeted pay raises in selective grades, significantly reducing soldier out-of-pocket expenses for housing, and an accelerated Residential Communities Initiative to improve on-post quarters for our families, to name just a few initiatives to support our soldiers.

To shift away from our individual replacement system, we are examining options for unit-manning initiatives that will enhance the cohesion of combat readiness of our formations while improving the predictability of assignment patterns for Army families.

We have had since September 11 over 30,000 National Guard and Reserve soldiers on active duty consistently for the past 18 months. As of today, we have activated over 128,000 of these reservists for current potential future operations. These Reserve component soldiers are performing magnificently, and we appreciate the tremendous support that they have received from their employers, as well as the American public. We recognize the unique sacrifices made by these citizen soldiers as they step up to do their duty as citizens and patriots.

From a readiness perspective, the Army is ready for any additional operations we are ordered to perform in the future, and our great soldiers are successfully meeting our many current obligations around the world. With your help in fiscal year 2003 and again in our fiscal year 2004 budget request, we fully funded training requirements for the force, significantly improved our spare parts availability, and accelerated fielding of soldier support items and unit communications equipment to make our unit as ready as possible.

Having said that, our operations tempo (OPTEMPO) has never been higher in my nearly 40 years of experience with the Army. While we have fully funded normal OPTEMPO and training, including the full complement of pre-September 11 missions such as Bosnia, Kosovo, the Sinai, and Korea, we have many other obligations as we pursue the global war on terrorism as part of the joint force. Post-September 11 missions of the past 18 months include Operation Noble Eagle, here at home, Operation Enduring Freedom in Afghanistan, as well as operations in the Philippines and elsewhere. Finally, we have a significant flow of Army forces into the Persian Gulf in support of the diplomatic efforts to ensure the disarmament of Iraq. Given this level of activity, it should come as no surprise that supplemental funding will be required in 2003.

We are working hard to balance our readiness imperative with realistic training with our obligations as good stewards of the environment with our range preservation initiative that you are considering. It is essential for us to restore the balance between the use of military lands for their uniquely military purposes and the need for environmental protection and species preservation. The readiness of our soldiers going into harm's way depends upon that, so we ask for your help with this important initiative.

From a transformation perspective, we are transforming our Army even while we execute combat operations and prepare for future contingencies, which is an absolute necessity. There will be no operational problems. We are transforming the business side of the Army as well as the operational forces, and we are transforming

within the joint context, not necessarily in a service-centered manner. We have held steady on the azimuth established by our Chief of Staff, General Eric Shinseki, in 1999, almost 4 years ago. In fiscal year 2004 we fund a fourth of our six Stryker brigades in the field at Fort Polk, Louisiana, with the Second Armed Cavalry regiment.

We remain focused on the Objective Force for the restructured Comanche armed reconnaissance helicopter program. We are postured to successfully meet acquisition Milestone B in May for the Future Combat System (FCS). FCS includes the Non-Line-of-Sight (NLOS) variant and the initial fielding increment, which will meet the cannon requirement previously addressed by the Crusader program. We remain on a glide path to field the first Objective Force unit in 2008 with an initial operational capability some 2 years later.

On the business side of the Army, we fully solicit your support for the Department of Defense (DOD) transformation package which will greatly streamline our operations and give us flexibility to manage the Department in the most efficient manner. In the same vein, our business transformation initiatives are designed to achieve greater value for the taxpayer dollar. Our Residential Communities Initiative (RCI) to privatize family housing continues to be an enormous success, and we deeply appreciate your support. Every set of family quarters in the United States Army will be up to standard by 2007, and I can't think of any better initiative to support families in an Army that is a married Army than RCI. Furthermore, we continue to privatize on-base utilities, centralize Army-wide contracting, and consolidate installation management activities into a new agency.

Finally, we are conducting what we call our "Third Wave Initiative," which seeks to eliminate all non-core functions currently consuming Army people and dollars and find some other way to accomplish those tasks. Rest assured, we will pursue these business initiatives in full consultation with Congress.

From a risk perspective, balancing the risk associated with near-term modernization and mid-term transformation has required us to make some very tough choices. We have had to terminate or restructure numerous modernization programs for the current force to generate the capital to fund the transformation. In a nutshell, our 2004 budget supplement funds people, readiness, and transformation at the expense of some of our infrastructure accounts and current force modernization. We made these judgments only after a careful balancing of operational risk, and the risk of not transforming, to provide the capabilities the Army needs to meet the obligations of mid- and long-term joint operational concepts.

In conclusion, I wish to return to those who I mentioned first in my remarks and those that are most important in the Army, our soldiers. Their performance in Afghanistan speaks volumes. In the dead of winter in a landlocked country in the toughest terrain imaginable, they collapsed the Taliban regime and put al Qaeda on the run. It's been my privilege as it has been your privilege to visit them in Afghanistan, Kuwait, Bosnia, Kosovo, and all around this country.

You could not meet a finer group of young Americans. They are, flat-out in my 40 years experience, the best soldiers I have ever seen, and we all ought to be very proud of them. Let me assure you they are ready for whatever contingencies and operations the President sees fit to order. Thank you for this opportunity to discuss the 2004 budget submission of the Army. I look forward to your questions.

[The prepared statement of Secretary White follows:]

PREPARED STATEMENT BY HON. THOMAS E. WHITE

Mr. Chairman and distinguished members of the committee, thank you for this opportunity to report to you today on the posture of the United States Army.

America's Armed Forces are the most powerful in the world. America's Army remains the most respected landpower to our friends and allies and the most feared ground force to those who would threaten the interests of the United States.

Since before the birth of the Nation, American soldiers have instilled hope in a noble dream of liberty. They have remained on point for the Nation through nine wars, and the intervals of peace in the years between—defending the Constitution and preserving freedom. Magnificent in their selfless service, long in their sense of duty, and deep in their commitment to honor, soldiers have kept the United States the land of the free and the home of the brave. This is our legacy. Our soldiers who serve today preserve it.

In October 1999, we unveiled our vision for the future—"Soldiers, on point for the Nation, transforming this, the most respected army in the world, into a strategically responsive force that is dominant across the full spectrum of operations." The attacks against our Nation on September 11, 2001, and the ensuing war on terrorism validate the Army's vision—people, readiness, transformation—and our efforts to change quickly into a more responsive, deployable, agile, versatile, lethal, survivable, and sustainable force.

While helping to fight the global war on terrorism, the Army is in the midst of a profound transformation. Readiness remains our constant imperative—today, tomorrow, and the day after. Transformation, therefore, advances on three broad axes: perpetuating the Army's legacy by maintaining today's readiness and dominance; bridging the operational gap with an Interim Force of Stryker Brigade Combat Teams; and fielding the Objective Force to fight and win conflicts in the years beyond this decade.

As they have throughout the Army's 227-year history, soldiers remain the centerpiece of our formations. Versatile and decisive across the full spectrum of joint missions, land forces have demonstrated time and again the quality of their precision in joint operations. Our responsibility is to provide soldiers with the critical capabilities needed for the tough missions we send them on.

After 3½ years of undiminished support from the administration and Congress, and the incredible dedication of soldiers and Department of the Army civilians, we have begun to deliver the Army Vision. With continued strong support, we will win the war against global terrorism, meet our obligations to our friends and allies, remain ready to prevail over the unpredictable, and transform ourselves for decisive victories on future battlefields.

We have achieved sustainable momentum in Army transformation; the framework is in place to see the Objective Force fielded this decade.

THE ARMY—AT WAR AND TRANSFORMING

The United States is at war, and the Army serves the Nation by defending the Constitution and our way of life. It is our nonnegotiable contract with the American people—to fight and win our Nation's wars, decisively.

In the weeks immediately following the attacks of September 11, 2001, Special Operations Forces (SOF) infiltrated Afghanistan, penetrated al Qaeda and Taliban strongholds, and leveraged all available long-range, joint fires, enabling the Northern Alliance to begin dismantling the Taliban. By January 2002, U.S. and Allied conventional force reinforcements began to set the stage for Operation Anaconda, where soldiers, demonstrating courage and determination under the most challenging conditions, defeated al Qaeda at altitude on the escarpments overlooking the Shah-e-kot Valley.

Today, more than 198,000 soldiers remain deployed and forward stationed in 120 countries around the globe, conducting operations and training with our friends and allies. Decisively engaged in the joint and combined fight against global terrorism,

soldiers are serving with distinction—at home and abroad. Soldiers from both the active and the Reserve component have remained "on point" for the Nation in the Balkans for 7 years, in Saudi Arabia and Kuwait for 12 years, in the Sinai for 21 years, and in Korea and Europe for over 50 years. At the publication of the Army Posture Statement, there were more than 110,000 Reserve component soldiers mobilized for active Federal service in support of Operation Noble Eagle and Operation Enduring Freedom. Even as we transform, soldiers will remain ready to answer the calls of the Nation to defeat well-trained, determined, and dangerous adversaries who miscalculate in taking on the best led, the best-equipped, and the best-trained army in the world.

At war and transforming, the Army is accelerating change to harness the power of new technologies, different organizations, and revitalized leader development initiatives to remain at the head of the line. To accomplish this, Army transformation advances along three major axes towards attainment of the Objective Force. We selectively recapitalize and modernize today's capabilities to extend our overmatch in staying ready to defend our homeland, keep the peace in areas important to the Nation, and win the war against global terrorism. Stryker Brigade Combat Teams—our Interim Force—will bridge the current operational gap between our rapidly-deployable light forces and our later-arriving heavy forces, paving the way for the arrival of the Objective Force. By 2010, the Army's Objective Force—organized, equipped, and trained for ground dominance, cyber-warfare, and space exploitation—will provide the Nation the capabilities it must have to remain the global leader, the strongest economy in the world, and the most respected and feared military force, by our friends and allies and our enemies, respectively.

The surprise attacks against our Nation and Operation Enduring Freedom, in response to those attacks, validated the Army Vision and provided momentum to our efforts to transform ourselves into an instrument of national power that provides full spectrum operational capabilities that are strategically responsive and capable of decisive victory. In a little over 3 years, we have begun to realize the Army Vision—People, Readiness, and Transformation.

The transforming Army is enriching as a profession and nurturing to families whose sacrifice has borne the readiness of the force for the past 10 years. Our well-being initiatives are our commitment to reverse this trend by giving our people the opportunity to become self-reliant, setting them up for personal growth and success, aggressively investing in family housing, and revitalizing single-soldier living space in our barracks. Our manning initiatives have filled our line divisions and other early deploying units to dampen the internal turbulence of partially filled formations and help put a measure of predictability back into the lives of our families.

The Army has carefully balanced the risk between remaining ready for today's challenges and preparing for future crises. With unwavering support from the administration, Congress, our soldiers, and Department of the Army civilians, the Army has made unprecedented progress in its efforts to transform.

We will achieve Initial Operating Capability (IOC) for the first Stryker Brigade Combat Team (SBCT) this summer and demonstrate the increased responsiveness, deployability, agility, verastility, lethality, survivability, and sustainability that SBCTs provide to combatant commanders. In a little over 3 years from initial concept to fielded capability, the SBCTs will allow us to glimpse the potential for acquisition reform in paving the way for delivery of the Objective Force.

We have constructed the framework for achieving the Objective Force this decade: a Transformation Campaign Plan with Roadmap, the Objective Force White Paper, the Operational and Organizational plans for the Objective Force Unit of Action, and the Operational Requirements Document for the Future Combat System of Systems.

Additionally, the Army is poised to fill ground maneuver's most critical battlefield deficiency—armed aerial reconnaissance—with Comanche, a capable, survivable, and sustainable aircraft that is a cornerstone of the Objective Force.

All along the way, we have tested our concepts in wargames and experiments, checked and rechecked our azimuth to the Objective Force weekly and monthly, and look forward to a successful Future Combat System Milestone B Defense Acquisition Board decision in May of this year.

However, we cannot accelerate Army Transformation without transforming the way the Army does business—from transformation of logistics and acquisition to personnel and installation transformation. Revolutionizing Army business management practices achieves the best value for taxpayers' dollars; conserves limited resources for investment in people, readiness, and transformation; enhances management of personnel systems, installations and contracting; and augments our potential to accelerate arrival of the Objective Force. Changing the Army is first about

changing the way we think, and better business practices represent practical application of common sense initiatives that best serve the Army and our Nation.

We are proud of our progress. We are grateful for the strong congressional support that has helped put the Army on its approach march to the Objective Force. The Army 2003 Posture Statement describes our tremendous progress in transformation—an orchestrated campaign, synchronized with OSD and joint transformation, to achieve the Objective Force and keep America's Army the dominant landpower in the world.

THE STRATEGIC ENVIRONMENT—THE REQUIREMENT TO TRANSFORM

During the last two decades of the 20th century, information-age technologies dramatically changed the political, economic, and military landscapes. Operation Desert Shield, Operation Desert Storm, and operations in Kuwait, Bosnia, and Kosovo illustrated the requirement for transforming our forces to meet the evolving, strategic requirements of our Nation. Survivable and extremely lethal, our heavy forces effectively met the requirements for which they were designed; yet, they were slow to deploy and difficult to sustain. Conversely, our light forces were rapidly deployable, but they lacked the protection, lethality, and tactical mobility that we seek across the spectrum of military operations. We were successful in winning the Cold War and, as a result, smaller than we had been in 40 years. The Army no longer had the luxury of specialized forces built to confront a single and narrowly defined threat like the Warsaw Pact countries.

Today's challenges are more complex; threats are elusive and unpredictable. The fight against international terrorism has overshadowed, but not eliminated, other potential crises. Tension between India and Pakistan persists; stability between China and Taiwan is tenuous; and concern over North Korea escalates. Threats of transnational terrorism and the proliferation of weapons of mass destruction (WMD)—often financed by organized crime, illicit drug transactions, trafficking in women and children, and the sale of arms—further complicate the security environment. Geopolitical trends such as scarce resources, youth population-spike in underdeveloped countries, aging populations in developed countries, and the growth of mega-cities, among others, presage a future strategic environment of diverse and widely distributed threats.

Fully appreciating the internal and external difficulties that profound change engenders, we assessed the operational challenges of the new century against the capabilities of our Cold War Army, recognized the opportunity to leverage the inherent combat power of the technological revolution, and set a clear path ahead—the Army Vision.

The 2002 National Security Strategy (NSS) reaffirms our military's highest priority—defending the United States. To do this effectively, we assure our allies and friends; dissuade future military competition; deter threats against U.S. interests, allies, and friends; and decisively defeat any adversary, if deterrence fails. The NSS directs the military to transform to a capabilities-based force ready to respond to unpredictable adversaries and security crises. The Objective Force meets these NSS requirements, and Army transformation will enhance our ability to conduct rapid and precise operations, achieve decisive results at the time and place of our choosing, and safeguard the Nation's ability to exercise our right of self-defense through preemption, when required.

The 2001 Quadrennial Defense Review describes a capabilities-based approach to defense planning that provides broader military options across the operational spectrum, from pre- to post-conflict operations. The force-sizing construct—1–4–2–1—takes into account the number, scope, and simultaneity of tasks assigned the military: it sizes the force for defense of the U.S. homeland (1), forward deterrence in four critical regions (4), the conduct of simultaneous warfighting missions in two regions (2)—while preserving the President's option to call for decisive victory in one of those conflicts (1)—and participation in multiple, smaller contingency operations.

THE ARMY—SERVING TODAY, BALANCING RISK, MANAGING TRANSFORMATION

Soldiers are the most precise and responsive means to strike and then control enemy centers of gravity on the ground—where people live, work, and govern. American soldiers are disciplined, professional, and trained for success in diverse missions; they are the foundation of a flexible force that accomplishes its missions in the non-linear battlespace by integrating new, innovative technologies and techniques with current systems and doctrine. Our people adapt under the harshest conditions, whether in the deserts of Kuwait and the Sinai, the mountains and rice paddies of Korea, or the tropics of the Democratic Republic of Timor-Leste.

These demanding commitments mean we must nurture a balance between current and near-term readiness and our transformation to meet future challenges. The Army has accepted reasonable operational risk in the mid-term in order to fund our transformation to the Objective Force. To avoid unacceptable risk, we are monitoring closely the current operational situation as we support the combatant commanders in the war against terror, conduct homeland defense, and prosecute the long-term effort to defeat transnational threats. We have designed and implemented the Strategic Readiness System (SRS) to provide a precision, predictive tool with which to monitor the Army and make appropriate adjustments to preserve current readiness. Our surge capacity in the industrial base further reduces current risk by keeping production lines warm and responsive. Our first Stryker Brigade Combat Team will provide the combatant commanders with a new capability to further mitigate operational risk—even as we transform to the Objective Force.

REALIZING THE ARMY VISION—PEOPLE, READINESS, AND TRANSFORMATION

In 1999, the Army announced its vision to transform into a more strategically responsive force, dominant across the full spectrum of military operations. The Army vision addresses three essential components: people, readiness, and transformation. Soldiers are the heart of the Army, the centerpiece of our formations, and the foundation of our combat power. Readiness remains our overarching imperative; it is the means by which we execute our nonnegotiable contract with the American people—to fight and win our Nation's wars, decisively. To preserve readiness while rapidly changing, transformation advances on three major axes: preserving our Army legacy by maintaining readiness and dominance today; bridging the operational gap with Stryker Brigades—the Interim Force; and fielding the Objective Force this decade to keep the Army dominant in the years beyond this decade.

Realizing the Army vision requires the concerted effort of the entire Army, across all components—from warfighting to institutional support organizations. The Army published its Transformation Campaign Plan in April 2001 to synchronize and guide this complex undertaking. The November 2001 Objective Force White Paper describes the advanced capabilities and core technologies needed to build the Objective Force. The Army's June 2002 Army transformation Roadmap defines transformation as a continuous process—with specific waypoints—that increases our contributions to the joint force while achieving the six DOD critical operational goals. The result will be a more strategically responsive and full spectrum dominant force capable of prompt and sustained land combat operations as a member of the joint force.

In support of the emerging joint operational concepts and architectures, the Army—as the major landpower component—continues to develop ground concepts for a full spectrum, and multidimensional force. These concepts are producing a joint force that presents potential enemies with multiple dilemmas across the operational dimensions—complicating their plans, dividing their focus, and increasing their chances of miscalculation.

In future joint operations, Objective Force units will be capable of directing major operations and decisive land campaigns with Army headquarters. Objective Force headquarters at all levels will provide the Joint Force Commander (JFC) with seamless, joint battle command and decision superiority. The modularity and scalability of our Objective Force formations will provide an unprecedented degree of flexibility and adaptability to the combatant commander—providing the right force at the right time for decisive outcomes.

PEOPLE—OUR MOST VALUABLE RESOURCE

The Army Vision begins and ends talking about people. People are central to everything else we do in the Army. Platforms and organizations do not defend this Nation; people do. Units do not train, stay ready, grow and develop leadership—they do not sacrifice and take risks on behalf of the Nation. People do. Institutions do not transform; people do. People remain the engine behind all of our magnificent moments as an Army, and the well-being of our people—the human dimension of our transformation—is inextricably linked to Army readiness.

In our vision, we recommitted ourselves to doing two things well each and every day—training soldiers and civilians and growing them into competent, confident, disciplined, and adaptive leaders who succeed in situations of great uncertainty. We are dedicated to preparing our soldiers to lead joint formations, to enabling our headquarters to command and control joint forces, and to providing to those joint formations the capabilities only the Army can bring to the fight: the ability to control terrain and populations.

MANNING THE FORCE

The objective of our manning strategy is to ensure we have the right people in the right places to fully capitalize on their warfighting expertise—this is the Army's commitment to the Nation, Army leaders, soldiers, and our families. Correctly manning our units is vital to assuring that we fulfill our missions as a strategic element of national policy; it enhances predictability for our people; and it ensures that leaders have the people necessary to perform their assigned tasks. In fiscal year 2000, we implemented a strategy to man our forces to 100 percent of authorized strength, starting with divisional combat units. The program expanded in fiscal year 2001 and fiscal year 2002 to include early deploying units. In fiscal year 2002, we maintained our manning goals and continued to fill our Divisions, Armored Cavalry Regiments, and selected Early Deploying Units to 100 percent in the aggregate, with a 93 to 95 percent skill and grade-band match. We remain on target to accomplish our long-term goal of filling all Army units to 100 percent of authorized strength.

RECRUITING AND RETAINING THE FORCE

In 1999, the Army missed its recruiting goals for the active component (AC) by about 6,300 inductees, and for the Reserve component by some 10,000. Our recruiting situation was simply unacceptable, and we committed ourselves to decisive steps and reversed that trend.

In fiscal year 2002, the active component achieved 100 percent of its goal in recruiting and retention—for the third consecutive year. The Army exceeded its AC 79,500 enlisted accession target in fiscal year 2002 and exceeded our aggregate fiscal year 2002 retention objective of 56,800 soldiers in all three categories by 1,437. We are poised to make the fiscal year 2003 accession target of 73,800, and we expect to meet our active component fiscal year 2003 retention target of 57,000. The fiscal year 2004 accession target is set at 71,500.

The Army Reserve has met mission for the last 2 years, and its recruiting force is well structured to meet fiscal year 2004 challenges. The Army Reserve continues to maintain a strong Selected Reserve strength posture at 205,484 as of January 17, 2003,—over 100.2 percent of the fiscal year 2003 end strength objective. Overcoming many recruiting and retention challenges in fiscal year 2002, the Army National Guard (ARNG) exceeded end strength mission, accessions were 104.5 percent of goal, and we exceeded reenlistment objectives.

To ensure that we continue to recruit and retain sufficient numbers, we are monitoring the current environment—the global war on terrorism (GWOT) and frequent deployments—to determine impact on morale, unit cohesiveness, combat effectiveness, and support of well-being programs that draw quality people to the Army. We continue to examine innovative recruiting and retention initiatives. The challenges we face in fiscal year 2003 and 2004 are two-fold: increase recruiter productivity and recruiting resources necessary to maintain recruiting momentum when the economy becomes more robust. Resourcing recruiting pays dividends well beyond accessions in the year of execution. For example, Army advertising in fiscal year 2002 influenced not only fiscal year 2002 accessions, but also potential recruits who will be faced with enlistment decisions in fiscal year 2003 and beyond.

RESERVE COMPONENT FULL-TIME SUPPORT (FTS)

Today, more than 50 percent of our soldiers are in the Reserve component (RC). The GWOT and homeland defense are significant undertakings that demand a high level of resourcing. The RC has been key to our success in these operations. To ensure the Army's RC continues to meet ever-increasing demands with trained and ready units, the Army plans to increase full-time support authorizations 2 percent each year through fiscal year 2012, increasing the FTS from the current level of 69,915 to a level of 83,046. The Army recognizes additional full-time support authorizations as the number one priority of the Army National Guard and Army Reserve leadership.

CIVILIAN COMPONENT

As a comprehensive effort to consolidate, streamline, and more effectively manage the force, the Army has begun an initiative to transform our civilian personnel system. High quality, well-trained civilians are absolutely essential to the readiness of our force and our ability to sustain operations today and in the future. Recruiting, training, and retaining a highly skilled, dedicated civilian workforce is critical in meeting our obligations to the combatant commanders and the Nation. Aggressive transformation of our civilian force—in which projections through fiscal year 2005

indicate a 16 percent annual turnover due to retirements and other losses—will ensure we continue to meet those obligations.

As of fiscal year 2002, the Army employed 277,786 civilian personnel. To forecast future civilian workforce needs with precision, we developed the Civilian Forecasting System, a sophisticated projection model that predicts future civilian personnel requirements under various scenarios. The Army is working closely with the Office of the Secretary of Defense (OSD) and other Federal agencies to demonstrate the power of this system so they can fully leverage its capabilities, as well.

The Civilian Personnel Management System XXI (CPMS XXI) has identified the reforms necessary to hire, train, and grow a civilian component that supports the transforming Army. To achieve this, we have redefined the way civilians are hired, retained, and managed. Mandatory experiential assignments will become the vehicle by which we develop future leaders. CPMS XXI fully responds to current mandates in the President's Management Agenda and incorporates the results of the Army Training and Leader Development Panels. For example, two initiatives for recruiting well-trained civilians are:

- The Army Civilian Training, Education, and Development System—a centrally managed program that accesses and trains civilian interns and grows a resource pool of personnel who can accede to senior professional positions.
- The DOD Appropriations Act for Fiscal Year 2002 and Fiscal Year 2003 provided direct hire authority for critical, hard-to-fill medical health care occupations and enabled the reduction in average fill-time for these positions to 29 days.

ARMY WELL-BEING

The readiness of the Army is inextricably linked to the well-being of our people, and Army well-being is the human dimension of our transformation. Well-being responds to the physical, material, mental, and spiritual needs of all Army people—soldiers, civilians, retirees, veterans, and their families. We recognize the fundamental relationship between well-being programs and institutional outcomes such as readiness, retention, and recruiting. To support mission preparedness as well as individual aspirations, well-being integrates policies, programs, and human resource issues into a holistic, systematic framework that provides a path to personal growth and success and gives our people the opportunity to become self-reliant. We recruit soldiers, but we retain families—well-being programs help make the Army the right place to raise a family. When our families are cared for, soldiers can better focus on their mission—training, fighting, and winning our Nation's wars, decisively.

Soldiers appreciate the Nation's devotion to them, and they are grateful for the country's recognition of their service and sacrifices. Recent improvements to the Montgomery GI Bill, Tricare for Life, Tricare Reform, Retired Pay Reform, the 4.1 percent general pay increase, and additional pay increases in 2003, are all important to soldiers and their families. These initiatives have helped the Army respond to the well-being needs of our people. Army voluntary education programs improve our combat readiness by expanding soldier skills, knowledge, and aptitudes to produce confident, competent leaders. Other well-being initiatives include:

- Spouse Employment Summit. The Army is developing partnerships with the private sector to enhance employment opportunities for Army spouses and provide improved job portability for them.
- Spouse Orientation and Leader Development (SOLD). SOLD connects Army spouses and enhances their opportunity to serve as valued leaders who contribute to the readiness and future of the Army and our Nation.
- Army University Access Online. eArmyU offers soldiers access to a variety of online, post-secondary programs and related educational services. www.eArmyU.com is a comprehensive web-portal widely accessible to soldiers, including those in Afghanistan, Bosnia, and Kuwait.
- In-State Tuition. To level the playing field for access to education opportunities, the Army is working to encourage States to grant in-State status for military personnel and families at public colleges and universities in their soldier's State of legal residence and State of assignment.
- High School Senior Stabilization. This policy enhances predictability by allowing families to request stabilization at their sponsor's current duty location if they have a child who will graduate from high school during that year.
- Secondary Education Transition Study (SETS) Memorandum of Agreement (MOA). Facilitated by the Army, this agreement among participating school superintendents is their commitment to partner and improve high

school transitions for DOD children. Currently, over 110 school superintendents have signed the SETS MOA.

LEADER DEVELOPMENT—TRAINING SOLDIERS AND CIVILIANS, AND GROWING LEADERS

The Army is a profession—the Profession of Arms. Conducting decisive ground combat operations in defense of the United States and its interests is a core competency of this profession. The development of each member of the Army is the foundation of lifelong devotion to duty—while in uniform and upon returning to the civilian sector.

By its nature, our profession is extraordinarily complex and dangerous. The American people entrust the Army with the sacred responsibility to apply lethal force in defense of U.S interests. As such, the Profession of Arms must remain firmly grounded in constitutional values and must constantly change and grow to preserve its competitive advantage in an evolving strategic environment. At all levels, our leaders—military and civilian—must apply their professional knowledge in increasingly varied and unique situations that are characteristic of today's strategic environment. Ultimately, we must grow professional Army leaders who provide wise and discerning military judgments founded on long experience and proven professional expertise. This capacity is developed only through a lifetime of education and dedicated service—in peace and in war.

Soldiers serve the Nation with the full realization that their duty may require them to make the supreme sacrifice for others among their ranks. Soldiers fighting the war on terrorism today, those who will fight our future wars, and those who have fought in our past wars are professional warfighters and a precious national asset. To ensure we remain the greatest landpower in the world defending the greatest country in the world, the Army and the Nation rely upon their unique and hard-earned experiences and skills. To develop the operational skills required to defend the Nation, training must remain our number one priority.

The evolving strategic environment, the gravity of our responsibilities, and the broad range of tasks the Army performs require us to review and periodically update the way we educate, train, and grow professional warfighters. The Army's strategic responsibilities to the Nation and combatant commanders now embrace a wider range of missions. Those missions present our leaders with even greater challenges than previously experienced. Therefore, leader development is the lifeblood of the profession. It is the deliberate, progressive, and continuous process that trains and grows soldiers and civilians into competent, confident, self-aware, and decisive leaders prepared for the challenges of the 21st century in combined arms, joint, multinational, and interagency operations.

In June 2000, we convened the Army Training and Leader Development Panel (ATLDP). The ATLDP's purpose is to identify skill sets required of Objective Force soldier and civilian leaders. Further, ATLDP assesses the ability of current training and leader development systems and policies to enhance these required skills. In May 2001, the Army Training and Leader Development Panel Phase I (Officer Study) identified 7 strategic imperatives and generated 89 recommendations. With those, we validated the requirement to transform our Officer Education System (OES)—from the Officer Basic Course through the Command and General Staff Officer Course. Additionally, the panel reconfirmed the value of Joint Professional Military Education II (JPME II) in preparing our leaders for joint assignments. The most significant product of the officer ATLDP is our OES transformation.

ATLDP Phase I (Officer Study) identified three high-payoff institutional training and education initiatives for lieutenants, captains, and majors. The first of these is the Basic Officer Leader Course (BOLC). BOLC will provide a tough, standardized, graduate-level, small-unit leadership experience for newly commissioned officers. The second of these initiatives is the Combined Arms Staff Course for staff officers, and the Combined Arms Battle Command Course for company commanders. Both courses will capitalize on advanced distributed learning and intensive resident training methods. The third initiative, Intermediate Level Education (ILE), will provide all majors with the same common core of operational instruction, and it will provide additional educational opportunities that are tailored to the officer's specific career field, branch, or functional area. Beyond ILE, Army officers continue to attend Joint or Senior Service Colleges to develop leader skills and knowledge appropriate to the operational and strategic levels of the profession.

Completed in May 2002, the ATLDP Phase II (NCO Study) resulted in 78 findings and recommendations extending across 6 imperatives—Army culture, NCO Education Systems (NCOES), training, systems approach to training, training and leader development model, and lifelong learning. Among others, the ATLDP Phase II recommended building new training and leader development tools for NCOs to re-

place current methods, as required. The ATLDP Phase III (Warrant Officer Study) culminated with 63 recommendations extending across 4 crucial imperatives. Recommendations included clarifying the warrant officer's unique role in the Army and improving the Warrant Officer Education System to ensure timely training and promotion. The Civilian Training and Leader Development Panel (Phase IV) study results are complete, and we are forming the Implementation Process Action Team (I–PAT). I–PAT will identify actions the Army must take to increase the professional development of our civilian workforce. At the senior leader level, the Army initiated the Army Strategic Leadership Course (ASLC). The program is aimed at teaching principles of strategic leadership, with emphasis on visioning, campaign planning, leading change, and transformation. To date, we have completed 12 of the foundation courses and 3 alumni courses, training the majority of the Army's general officers.

READINESS—WINNING OUR NATION'S WARS

Homeland Security (HLS)

Defending our Nation—abroad and at home—against foreign and domestic threats is fundamental to the Army's legacy, and our warfighting focus provides capabilities relevant to HLS requirements. HLS missions range from traditional warfighting competencies that defeat external threats to the non-combat tasks associated with supporting civil authorities in domestic contingencies. Operation Noble Eagle mobilized over 16,000 Army National Guard soldiers to protect critical infrastructure. These soldiers assisted the Department of Transportation in securing our Nation's airports while also playing a vital role in securing our Nation's borders. The Army is moving forward to provide one Civil Support Team to each State, as required by the National Defense Authorization Act for Fiscal Year 2003. The Civil Support Teams support incident commanders and identify chemical, biological, radiological, nuclear, and explosive (CBRNE) agents and substances, assess current and projected consequences, advise on response measures, and assist with appropriate requests for additional support. To date, OSD has certified 30 of 32 teams, and the Army is working to establish additional teams. Collectively, the certified teams have performed 890 operational missions since September 11, 2001. The Army remains committed to HLS, dedicating AC and RC staffs to focus on training, doctrine, planning, and execution of DOD missions in support of civil authorities.

Missile Defense

Robust missile defense is a vital warfighting requirement that protects both our homeland and our deployed forces. Missile defense includes far more than a reactive capability to shoot down missiles in their reentry phase. Missile defense requires a coherent system of sensors; battle command; weapons systems; and active, passive, proactive, and reactive operational concepts, all aimed at destroying enemy missiles—not only during their reentry phases. Missile defense must also be able to destroy enemy missiles on the ground, before they launch or during their boost phase once launched. Missile defense is inherently a joint capability to which the Army is a major contributor.

The Army is deploying and employing ground mobile defense assets to contribute to this warfighting capability, accelerating the fielding of the Patriot Advanced Capability 3 (PAC 3) system, and developing directed energy weapons that will bring new defense measures to the Army and the Nation. We are postured to assume control of the Medium Extended Air Defense System (MEADS) program in fiscal year 2003 and intend to begin fielding by fiscal year 2012.

MEADS is a transformational program of Objective Force quality and a significant improvement on Patriot's capabilities. It will be more mobile and more deployable (C–130 capable) than Patriot and cover a 360-degree radius to Patriot's 120 degrees. It will be effective against low radar, cross section cruise missile targets, and require only 30 percent of Patriot's manpower. MEADS will be more accurate and more sustainable than Patriot.

Chemical Demilitarization

In Section 1412 of Public Law 99–145, Congress directed the DOD to destroy the United States' chemical weapons stockpile. In turn, the Secretary of Defense delegated management of all chemical munitions disposal to the Department of the Army. On November 29, 2000, the Johnston Atoll Chemical Agent Disposal System, using incineration-based technology, completely destroyed the last stockpiles stored at the Atoll, and closure operations began in January 2001. The Tooele Chemical Agent Disposal Facility has incinerated 44 percent of the chemical agents and 81 percent of the munitions stored there. Disposal operations at these two sites destroyed 30 percent of the total U.S. chemical weapons stockpiles. Construction of in-

cineration facilities at Anniston, Alabama; Umatilla, Oregon; and Pine Bluff, Arkansas, is complete. Systemization activities are on-going at Aberdeen, Anniston, Umatilla, and Pine Bluff. The plan to accelerate the disposal of bulk agents using a neutralization process at Aberdeen, Maryland, and Newport, Indiana, has been approved. Anniston and Aberdeen are scheduled to start destruction in second quarter fiscal year 2003, and Newport is scheduled to begin in first quarter fiscal year 2004.

To comply with treaty agreements and the congressional mandate, we must complete the destruction of these weapons by 2007. The treaty allows for a one time, 5-year extension to this deadline. With continued funding and minimal schedule changes, we will safely destroy the U.S. stockpile of lethal chemical agents and munitions at eight existing CONUS sites.

Training the Force

In October 2002, the Army released Field Manual (FM) 7–0, Training the Force. Synchronized with other field manuals and publications being updated to respond to changes in Army, joint, multinational, and interagency operations, FM 7–0 is the capstone doctrinal manual for Army training and leader development. It provides the developmental methodology for training and growing competent, confident soldiers, and it addresses both current and future Objective Force training requirements.

We are transforming the way we fight future wars, and the Army is participating fully in a DOD-sponsored program to transform how forces train to fight. This effort involves four major initiatives: building upon existing service interoperability training; linking component and joint command staff planning and execution; enhancing existing joint training exercises to address joint interoperability; and studying the requirement for dedicated joint training environments for functional warfighting and complex joint tasks. The Army is scheduled to host the first joint National Training Center (NTC) event at Fort Irwin, California, in May 2003. During June 2003, the U.S. Army Forces Command will execute the second joint NTC event—JCS exercise Roving Sands.

During the late 1990s, funding for the recapitalization and modernization of the Army's Combat Training Centers was reduced, eroding their capability to support their critical missions. Additionally, the Multiple Integrated Laser Engagement System equipment and current force instrumentation systems have become difficult to maintain. The Army's Combat Training Center modernization program will ensure that our premier training areas (NTC at Fort Irwin, Combat Maneuver Training Center in Germany, the Joint Readiness Training Center (JRTC) at Fort Polk, and the Deep Attack Center of Excellence near Gila Bend, Arizona) are modernized to provide high quality, realistic, full-spectrum joint training. To address these problems, the Army will invest nearly $700 million over the next 6 years to modernize these training centers.

OPTEMPO

In accordance with congressional directives, the Army developed a new methodology to prepare budget requests that accurately reflect operations and maintenance requirements. In the report submitted in July 2002, the Army outlined updated processes that ensure consistency in reporting of tank miles and reflect requirements and execution with more precision. Management controls initiated in fiscal year 2001 to prevent migration of OPTEMPO funds to other areas were highly successful and remain in effect.

The Army's combined arms training strategy determines the resourcing requirements to maintain the combat readiness of our forces. For the active component, the Army requires 800 ground OPTEMPO miles per year for the M1 Abrams tank and corresponding training support; the active component flying hour program requires an average of 14.5 live flying hours per aircrew each month. Both Army National Guard and the Army Reserve aircrew training strategies require 9.0 hours per crew each month. The ARNG ground OPTEMPO requirement is a composite average of 174 miles in fiscal year 2004, and the Army Reserve (USAR) ground OPTEMPO requirement is 200 tank-equivalent miles in fiscal year 2004.

While this describes the Army's training strategy, actual execution levels from unit to unit have varied depending upon factors such as on-going operations, safety of flight messages, and adequate manning of combat formations. To this end, the Army has fully funded its AC ground OPTEMPO requirement, while its AC flying program is funded to its historical execution level of 13.1 flying hours. The RC air and ground OPTEMPO are similarly funded to their execution levels, rather than their requirement. Although the Army has not always been able to execute the

training strategy, we have taken steps to have all units execute the prescribed training strategy in fiscal year 2003, fiscal year 2004, and beyond.

Force Protection and Antiterrorism

Force protection consists of those actions to prevent or mitigate hostile actions against Department of Defense personnel and includes family members, resources, facilities, and critical information. In the war on terrorism, the area of operations extends from Afghanistan to the East Coast and across the United States. Naturally, force protection and antiterrorism measures have increased across Army installations in the continental United States (CONUS) and overseas.

Findings from the Cole Commission, the Downing Report on the Khobar Towers bombing, and Army directives to restrict access to installations have all led to thorough assessments by the Department of the Army Inspector General, the Deputy Chief of Staff for Operations, and commanders. Our efforts focus on improved force protection policy and doctrine; more rigorous training and exercises; improved threat reporting and coordination with national intelligence and law enforcement agencies; enhanced detection and deterrence capabilities for CBRNE threats; increased capabilities and protection for access control; and expanded assessments of Major Commands (MACOM) and installation force protection programs. Both operational and installation environments rely upon secure, networked information infrastructure to execute daily enterprise-wide processes and decision-making, so the parameters of force protection include contemporary and evolving cyber threats, as well.

The Army's Information Systems Security Program (ISSP) secures the Army's portion of the Global Information Grid, secures the digitized force, and supports information superiority and network security defense-in-depth initiatives. ISSP provides the capability to detect system intrusions and alterations and react to information warfare attacks in a measured and coordinated manner. To the greatest extent possible, it protects warfighters' secure communications—from the sustaining base to the foxhole.

Soldiers, active and Reserve, are heavily engaged in force protection and antiterrorism missions. Soldiers guard military installations, nuclear power plants, dams and power generation facilities; tunnels, bridges, and rail stations; and emergency operations centers. During the 2002 Winter Olympics in Salt Lake City, Utah, nearly 1,500 ARNG soldiers provided security, and soldiers guarded key infrastructure sites during Super Bowl XXXVII in January 2003. Over 12,500 Reserve component soldiers are currently mobilized for Operation Noble Eagle to fulfill force protection requirements, and in February 2003, over 8,000 Army National Guard soldiers will support Air Force security requirements—a requirement that could reach 9,500 soldiers. Security of detention facilities and detainees at Guantanamo Bay Detention—a long-term detainee mission—requires approximately 1,500 Army personnel, 50 percent of whom are military police. Army Reserve Internment and Resettlement battalions on 6-month rotations impact military police availability to CONUS force protection requirements.

Sustainment

The Army is revolutionizing its logistics process. One initiative, the Single Stock Fund (SSF), redirected more than $540 million worth of secondary items from stocks to satisfy customer demands between May 2000—SSF inception—and November 2002. During that same period, we redistributed more than $218 million worth of secondary items from the authorized stockage levels to meet higher priority readiness requirements. By extending national visibility of stockage locations and capitalizing inventories into the Army Working Capital Fund, we reduced customer wait time by an average of 18.5 percent. The SSF will continue to reduce inventory requirements and generate even more savings for the Army by creating greater flexibility for the management of inventories.

Another initiative, the National Maintenance Program (NMP), enhances weapon system readiness, reliability, and availability rates by bringing Army Class IX repair parts to a single national standard. Ultimately, increased reliability will reduce overall weapon system operating and support cost. Additionally, the NMP centralizes the management and control of Army maintenance activities for components and end items. NMP will produce appropriately sized Army maintenance capacity that still meets total maintenance requirements.

Strategic Readiness Reporting

The National Defense Authorization Act for Fiscal Year 1999 requires the Secretary of Defense to implement a comprehensive readiness reporting system that objectively measures readiness to support the NSS. The Army's Strategic Readiness

System (SRS) responds to and provides a baseline in achieving this critical initiative.

SRS is a precision readiness measurement tool that provides Army leadership with accurate, objective, predictive, and actionable readiness information to dramatically enhance resource management toward one end—strategic readiness to defend the United States. The Army Scorecard—a product of SRS—will integrate readiness data from the business arena and the operating, generating, and sustaining forces of both the active and Reserve component. Army Scorecard methodology focuses on four critical areas: People—investing in soldiers and their families; Readiness—maintaining the support capability to the combatant commanders' operational requirements; transformation—transforming the Army into the Objective Force; and application of sound business practices.

SRS markedly improves how we measure readiness. It gathers timely information with precision and expands the scope of the data considered. We are further developing this system to leverage leading indicators and predict trends—solving problems that affect readiness before they become problems, from well-being to weapons platforms. SRS will help enable the Army preserve readiness to support combatant commanders, invest in soldiers and their families, identify and adopt sound business practices, and transform the Army to the Objective Force.

Installations

Army installations are our Nation's power projection platforms, and they provide critical training support to the Army and other members of the joint team. Additionally, soldiers, families, and civilians live and work on Army installations. The quality of our infrastructure directly affects the readiness of the Army and the well-being of our soldiers, families, and civilians.

The Army has traditionally accepted substantial risk in infrastructure to maintain its current warfighting readiness. However, a decade of chronic under funding has led to a condition in which over 50 percent of our facilities and infrastructure are in such poor condition that commanders rated them as "adversely affecting mission requirements." Our facilities maintenance must improve. Over the past 2 years, with the help of the administration and Congress, the Army has begun to rectify this situation with significant increases in funding and innovative business practices. These efforts have been dramatically successful as we continue to correct a problem that was 10 years in the making. Thus, in an effort to prevent future degradation of our facilities, the Army has increased its funding for facilities sustainment to 93 percent of requirement beginning in fiscal year 2004.

TRANSFORMATION OF INSTALLATION MANAGEMENT (TIM)

Recognizing the requirement to enhance support to commanders, the Secretary of the Army directed the reorganization of the Army's management structure. On October 1, 2002, the Army placed the management of Army installations under the Installation Management Agency (IMA). IMA is a new field-operating agency of the Assistant Chief of Staff for Installation Management (ACSIM). Its mission is to provide equitable, efficient, and effective management of Army installations worldwide to support readiness; enable the well-being of soldiers, civilians, and family members; improve infrastructure; and preserve the environment. This new management approach eliminates the migration of base operations funds to other operational accounts below the HQDA level. It also enables the development of multi-functional installations to support evolving force structure and Army transformation needs. The Army is poised to capitalize on opportunities TIM gives us to provide excellence in installations.

Two programs that significantly increase the well-being of our soldiers and their families are the Barracks and the Family Housing programs. The Army established the Barracks Upgrade Program (BUP) in the late 1990s to improve single soldiers' housing conditions. Through 2002, we have upgraded or funded-for-upgrade 70 percent of our permanent party barracks to soldier suites that consist of two single bedrooms with a shared bath and common area. The Army will continue the BUP until all permanent party barracks achieve this standard.

With the strong support of Congress, the Army established the Residential Communities Initiative (RCI) for our families. This program capitalizes on commercial expertise and private capital to perform a non-core function for the Army family housing management. The program provides greater value to the Army by eliminating the housing deficit at our first 11 sites, while leveraging a $209 million Army investment into $4.1 billion of initial private development. The Army's privatization program began with 4 pilot projects and will expand to 18 active projects by the end of fiscal year 2003. Pending OSD and congressional approval, 28 projects are planned through 2006 that will impact over 72,000 housing units or 80 percent of

Army family housing in the United States. By the end of 2007, we will have the programs and projects in place to meet the OSD goal of eliminating inadequate family housing. We will accomplish this goal through RCI and increased Army investment in family housing military construction (MILCON) at non-privatized installations. The Reserve component (RC) enhances RCI through real property exchange authority that is only available to the RC. This legislative authority allows the exchange of RC owned property with public or private entities and has a tremendous potential to improve future Reserve component infrastructure at no governmental cost.

The Army has also aggressively reduced its financial burden and physical footprint by disposing of 34 percent of its facilities from a 1990 high of 116 billion square feet. The Army anticipates that the congressional fiscal year 2005 Base Realignment and Closure (BRAC) authority will permit additional appropriate reductions. BRAC will enable the Army to dispose of excess infrastructure and realign the remaining facilities with the requirements of the transforming Army and the Objective Force. BRAC will also allow the Army to re-allocate resources from closed or realigned installations to other high priority requirements.

The Army continues to improve its utilities infrastructure by divesting itself of non-core utility systems' operation and maintenance through privatization. As of December 2002, we had privatized 64 of the 351 systems in the program, and we have an additional 104 presently under negotiation.

As part of our Army Knowledge Management (AKM)—described later in more detail—we are modernizing our Installation Information Infrastructure—infostructure—to support a network-centric, knowledge-based Army. The Installation Information Infrastructure Modernization Program (I^3MP) executes a multi-year, $3.2 billion program for upgrades to optical fiber and copper cable, installation of advanced digital equipment, and upgrades to Defense Global Information Grid gateways. This program will ensure worldwide, high-speed data connectivity at Army installations. To date, we have completed 22 of 95 CONUS installations and initiated upgrades at 4 installations outside of the continental United States (OCONUS). We plan to complete I^3MP in 2009.

TRANSFORMATION—CHANGING THE WAY WE FIGHT

The Army is fundamentally changing the way we fight and creating a force more responsive to the strategic requirements of the Nation. We are building a joint precision maneuver capability that can enter a theater at the time and place of our choosing, maneuver at will to gain positional advantage, deliver precise joint fires and, if necessary, close with and destroy the enemy.

The Objective Force is an army designed from the bottom up around a single, networked, integrated C^4ISR architecture that will link us to joint, interagency, and multi-national forces. It will be a rapidly deployable, mounted formation, seamlessly integrated into the joint force and capable of delivering decisive victory across the spectrum of military operations. Consolidated, streamlined branches and military operational specialties comprised of professional warfighters will be poised to transition rapidly from disaster relief to high-end warfighting operations.

The Objective Force and its Future Combat System of Systems will leverage and deliver with precision the combat power of joint and strategic assets. It is a capabilities-based force that rapidly responds to the requirements of the strategic environment in which our soldiers will be the most strategically relevant and decisively capable landpower—no matter the mission, no matter the threats, no matter the risks.

In the final analysis, the Army's combat power does not wear tracks or wheels—it wears boots. No platform or weapon system can match a soldier's situational curiosity and awareness. It is the soldiers' ability to discern and to think, their ingenuity and resourcefulness, their endurance and perseverance, and their plain grit that make them the most reliable precision weapon in our inventory. Soldiers remain the centerpiece of our formations.

To help guide our transformation efforts, the Army leverages lessons-learned from extensive experimentation and wargaming. We are working to harness the power of knowledge, the benefits of science and technology, and innovative business solutions to transform both the operational and institutional Army into the Objective Force. The Army's annual Title 10 Wargames provide critical insights for developing the Objective Force. Likewise, results from joint experiments—Millennium Challenge 2002 and other Service Title 10 Wargames like Global Engagement, Navy Global, and Expeditionary Warrior, to name a few—also inform these efforts.

The Army is fully committed to joint experimentation as a means to examine and assess Objective Force contributions to the strategic, operational, and tactical levels of joint warfare. The Army has established a joint/Army Concept Development and

Experimentation (CD&E) Task Force to ensure that Army CD&E efforts are synchronized with joint CD&E. This task force makes certain that joint experiment lessons-learned inform the design and development of the Objective Force. This year, the Army's Title 10 Wargame—co-hosted by Commander, Joint Forces Command—will focus on the joint force that will fight the next battle. Linked to Joint Forces Command's Pinnacle Impact 03 experiment, it will be conducted within the context of a future 1–4–2–1 global scenario and the emerging Joint Operations Concept. The Army is committed to these efforts, and in this budget we have nearly doubled last year's funding of these exercises.

Joint, interagency, multinational, and Army warfighting experiments provide invaluable opportunities for the Army to experiment with innovative approaches to warfighting and to test new tactics, techniques, procedures, organizations, processes, and technology. In Millennium Challenge 2002, the largest joint experiment in U.S. history, the Army demonstrated four vital capabilities it brings to the joint fight:

- the ability to attain and maintain information superiority (knowledge);
- the ability to conduct decisive maneuver to enable dominant joint maneuver;
- the ability to defeat the opposition in an anti-access environment through rapid entry and employment capabilities; and
- the ability to support and sustain rapid combat power efficiently by reducing the operational and tactical logistics footprint.

To evaluate the effectiveness of the Stryker Brigade Combat Team (SBCT) concepts for battalion and company operations in a joint force, the Army employed a SBCT unit during Millennium Challenge. Less than 4 weeks after Stryker vehicles were delivered to the first unit at Fort Lewis, the unit demonstrated rapid air and sealift deployability and integrated into the exercise well. Additionally, when given a mission on short notice to support a Marine Corps unit in ground operations, the SBCT unit demonstrated its agility and versatility.

Balancing Risk as We Manage Change

Balancing risk is integral to Army transformation. To maintain current readiness while we transform, we are managing operational risk: risk in current readiness for near-term conflicts with future risk—the ability to develop new capabilities and operational concepts that will dissuade or defeat mid- to long-term military challenges. The Army has accepted risk in selective modernization and recapitalization, and we continue to assess these risks as we balance current readiness, the well-being of our people, transformation, the war on terrorism, and new operational commitments. Since 1999, the Army has terminated 29 programs and restructured 20 others for a total savings of $12.8 billion. These funds were reallocated to resource the Stryker Brigades and essential Objective Force research and development.

In Program Budget 2004 and its associated Five-Year Defense Plan (FYDP), the Army has generated an additional $22 billion of savings by terminating 24 additional systems and reducing or restructuring 24 other systems. To accelerate achieving the Objective Force capabilities and mitigating operational risk, the Army reinvested these savings in the development of transformational capabilities in these and other programs:

- Future Combat System—$13.5 billion
- Precision Munitions—$3.2 billion
- Sensors and Communications—$2.3 billion
- Science and Technology—$1.1 billion
- Missile and Air Defense—$1.1 billion

The operational risk associated with the decreased funding for certain current programs is acceptable as long as we field Stryker Brigades on schedule and accelerate the fielding of the Objective Force for arrival this decade. We will continue to reassess the risk associated with system reductions and related organizational changes against operational requirements and the strategic environment.

An Information Enabled Army

Achieving the full spectrum dominance of the Objective Force requires changing the way we fight. Changing the way we fight requires a holistic transformation of logistics, personnel, installation management, acquisition, aviation, business practices—every aspect of the Army must transform. The Objective Force requires innovative changes and out-of-the-box ingenuity in the way we take care of our people and manage the information and material that enhances their readiness and answers their needs—both personal and professional, at home and in the short sword warfight at foxhole level. Simply put, we cannot achieve the Objective Force capabilities without leveraging the full potential of the technological advances that our

Nation's industrial base and science and technology (S&T) communities are developing. The Army has consolidated management of information technologies (IT) into a single effort—Army Knowledge Management (AKM). AKM capitalizes on IT resources unique to our Nation and harnesses them for transformation, for the Army, and for the combatant commanders.

Information management is critical to achieving the Army Vision, and Army Knowledge Management supports transformation through the development and implementation of a network-centric, knowledge-based Army architecture interoperable with the joint system. AKM will accelerate the detect-decide-deliver planning processes and enable warfighters to see the adversary first—before our forces are detected; understand the common relevant operating picture first; act against adversaries first; and finish the warfight with decisive victories—see first, understand first, act first, finish decisively. AKM will provide knowledge at the point of decision for all leaders—from the factory to the foxhole.

Enabling collaborative mission planning and execution among widely dispersed locations around the globe, AKM will provide a rapid and seamless flow and exchange of actionable information and knowledge. The network-centric operations that AKM enables will decrease our logistic footprint and enhance sustainability of the Objective Force through multi-nodal distribution networks—reaching forward to the theater and back to installations. Advanced information technologies will dramatically enhance battle command. Command, control, communications, and computer (C^4) decision tools seamlessly linked to intelligence, surveillance, and reconnaissance (ISR) assets produce a radically improved common relevant operating picture (CROP) and enable battle command.

AKM will dramatically enhance the warfighter's ability to distribute, process, fuse, and correlate unprecedented amounts of actionable data into information—securely, reliably, and quickly enough to enable leaders to synchronize and mass effects for decisive results. Network-centric operations enable information awareness, information access, and information delivery.

The Army Knowledge Enterprise (AKE) construct describes the Army's process to enable improved strategic and tactical information distribution and collaboration. In short, AKE leverages the ingenuity and resourcefulness of our people in shaping the environment to achieve dominance and helps leaders achieve decision superiority and mission efficiencies.

Integration and refinement of existing Army networks is the first step in achieving a network-centric, information-enabled force that creates efficiencies and provides secure, reliable, actionable information communications. To this end, the Army activated the Network Enterprise Technology Command (NETCOM). NETCOM is the Army's single authority assigned to operate, manage, and defend the Army's information infrastructure. NETCOM has assumed technical control of all Army networks—active, Guard, and Reserve. This new policy allows NETCOM to evaluate any system, application, or piece of equipment that touches the Army networks. NETCOM will improve the capacity, performance, and security of our networks at every level.

Among others, one tangible product of NETCOM is the consolidation and removal of redundant servers across the Army. This example of better business practice will harvest significant savings in resources—both dollars and managers—while increasing the effectiveness of the network. Since the first quarter fiscal year 2002, we have reduced the number of servers Army-wide by 16 percent—311 in the National Capital Region alone.

Army Knowledge Online (AKO) begins to allow the Army to decentralize the management of information. AKO is the Army's secure, web-based, internet service that leverages the Army's intellectual capital to better organize, train, equip, and maintain our force. It gives our people a means to collaborate, to improve their situational awareness, and to access their personnel data. Already, hard-copy processes that formerly took days and weeks can now be accomplished almost instantly—from pay to personnel actions to assignments, to name a few. AKO is just an early glimpse of the potential capabilities of a network-centric, knowledge based organization that harnesses the potential of the global infostructure.

OPERATIONAL ARMY

The Objective Force

The Army is actively engaged in global operations supporting combatant commanders today, but it is our obligation to prepare for the future, as well. The Objective Force is the Army's future full-spectrum force that will be organized, manned, equipped and trained to be more strategically responsive, deployable, agile, versa-

tile, lethal, survivable, and sustainable than we are today—across the full spectrum of military operations as an integral member of a cohesive joint team.

The Nation will continue to face adaptive, asymmetric threats that capitalize on the power of information. To dominate and maintain superiority over these emerging challenges, the Army is changing the way we fight—a paradigm shift more significant than the 20th century's introduction of the tank and the helicopter. The Army is changing from sequential and linear operations to distributed and simultaneous operations. The Objective Force—characterized by networks of people enabled with systems that provide actionable information and decision superiority—will dissuade, deter, or decisively defeat our adversaries anytime, anyplace, and anywhere.

The Objective Force will consist of command structures scaled to meet Joint Force Commander requirements and modular combined-arms units tailored according to each situation. Objective Force integrated, mobile, air-ground teams will conduct mounted and dismounted operations and employ both manned and unmanned platforms to achieve decisive victories. Capable of forcible entry and operations in austere environments to address the spectrum of military operations—from humanitarian assistance to warfighting—the Objective Force will conduct simultaneous combat and stability operations and master transitions between phases of operations. It will be an offensively oriented, multi-dimensional force enabled by advanced information technologies that give soldiers real-time intelligence and actionable information.

The Objective Force will arrive in theater combat-capable; deployment will be synonymous with employment. The Objective Force will be strategically responsive and rapidly deployable on the U.S Air Force family of inter-theater and intra-theater aircraft. An Objective Force Unit of Action (UA) will deploy on approximately one-third the number of aircraft required to deploy a heavy brigade combat team today. It will be operationally deployable and capable of operational maneuver over strategic distances by air, land, or sea. Soldiers will overcome anti-access and area denial strategies and environments through precision maneuver and decision superiority.

Equipped with new systems designed to meet the needs of the Army's future fighting formations, the Objective Force will be a networked system-of-systems. This system-of-systems includes soldiers equipped with the Land Warrior system; a family of 18 integrated, synchronized, manned and unmanned FCS; and critical complementary systems such as the Comanche and the Future Tactical Truck System. The components of the FCS are being synchronously developed and fielded as a complete family to achieve the warfighting capabilities the Nation requires to defeat adaptive, asymmetric conventional and unconventional adversaries.

Soldiers are the centerpiece of the Army's formation—not equipment. Soldiers of the Objective Force will leverage dominant knowledge to gain decision superiority over any adversary. They will seamlessly integrate Objective Force capabilities with the capabilities of joint forces, Special Operations Forces, other Federal agencies, and multinational forces. The Objective Force soldiers will enable the United States to achieve its national security goals in a crisis, rather than simply inflict punitive strikes on an adversary. Employing FCS capabilities in formations called Units of Action (UA) and Units of Employment (UE), Objective Force soldiers will provide campaign quality staying power—that means precision fire and maneuver to control terrain, people, and resources, without having to resort to indiscriminate collateral damage. The Land Warrior system will integrate individual soldiers in the network while providing them increased protection and lethality. FCS will give soldiers the capability to destroy any adversary in any weather and environment with smaller calibers, greater precision, more devastating target effects, and at longer-ranges than available today.

Joint C^4ISR—a network-centric information architecture nested within the Global Information Grid—will connect the Objective Force's system-of-systems. Capitalizing on the synergistic power of the information network enterprise, every Objective Force soldier and platform will be capable of sensing and engaging the enemy while maintaining situational awareness of friendly forces. Advanced information technologies and C^4ISR decision tools and assets will enhance the Common Relevant Operating Picture (CROP). The Objective Force will identify, locate, and engage critical targets with lethal or non-lethal affects and assess battle damage on those targets. The joint C^4ISR linkages will enable the attack of targets with whatever joint or Army assets are available for immediate employment, whether the force is in contact or out of contact. Similarly, enhanced situational awareness will facilitate multi-layered active and passive defense measures—including both offensive and defensive counter air against air and non-air breathing, manned and unmanned aerial vehicles.

The CROP and network-centric operations will enhance sustainability of the Objective Force through multi-nodal distribution networks that reach forward to the

area of operations or reach back to the Home Station Operations Center. Increased reliability through equipment design and commonality among the FCS family of systems will enhance sustainability while reducing logistics demands. Advanced technologies will enable robust Objective Force operations while shrinking the logistics footprint and lift requirements of deployed forces.

The FCS is a transformational approach to meeting this Nation's requirements for the Objective Force. We designed and will field the FCS family in a carefully balanced manner to avoid optimizing a component at the expense of sub-optimizing the overarching capabilities of Objective and Joint Forces. The acquisition and requirements development processes are being updated to accommodate the DOD's direction to field a networked system of systems rapidly through spiral development and an open architecture that allows maturing technological insertions as they occur.

The Army embraces the ongoing DOD and Joint Staff capabilities and acquisition processes reform efforts to achieve revolutionary capabilities in the fielding of a new generation of equipment. This collaborative DOD and JCS effort enables the Army to design new information-age capable organizations holistically, use evolutionary acquisition strategies to equip those organizations, and see the Objective Force fielded before the end of this decade.

Science and Technology (S&T)—Moving Toward the Transformed Army

Preempting our adversaries' technological surprises over the past 3 years, Army S&T investments are already providing America's Army with sustained overmatch in all materiel systems. The Army has increased and focused its S&T investments. We are demonstrating the enabling joint interoperable technologies essential for Objective Force capabilities and accelerating their arrival. Our S&T program is pursuing a wide spectrum of technologies for unmanned air and ground systems that will expand the range of joint warfighting capabilities, reduce risk to soldiers, and reduce the logistics footprint of the force. Realizing the full potential of unmanned systems requires technological development in sensors that improve navigation and mission performance, in intelligent systems for semi-autonomous or autonomous operation, in networked communications for manned-unmanned teaming, and in human-robotic interfaces, among many others.

The Defense Advanced Research Projects Agency (DARPA) and Army partnership contracted for a Lead Systems Integrator (LSI) to accelerate the transition of FCS to the System Development and Demonstration (SDD) Phase, with a Milestone B decision in May 2003. The Army is on track to achieve first unit equipped in 2008 and an initial operating capability of one Objective Force Unit of Action (UA) in 2010. To accelerate development and in partnership DARPA, the focus on key transformation technologies for the FCS has been narrowed to the systems with the most promise. Our highest priority S&T efforts remain technological advances for the FCS.

The Army will field FCS as a family of systems built on information age technologies embedded in manned and unmanned air and ground platforms. Integral to joint fires, the family of systems will integrate long-range air- and ground-based sensors with long-range cannon and missile precision munitions. The family of systems will also provide increased joint capabilities to conduct battle command, reconnaissance, mounted combat operations, dismounted combat operations, medical treatment and evacuation, and maintenance and recovery. To provide decisive lethality, FCS will employ networked, precision and loitering attack munitions fired from modular, easily transportable containers. Finally, FCS will leverage embedded, real-time interactive, virtual, distributed, collaborative, joint simulations for training and mission rehearsal.

Enabling the Objective Force Soldier

Eighteen systems, both manned and unmanned; the Objective Force soldier; and C^4ISR, together, comprise the Future Combat System. Manned and unmanned reconnaissance capabilities are part of the FCS Family of Systems' interdependent networked air- and ground-based maneuver, maneuver support, and sustainment systems.

There are 10 unmanned systems: Unmanned Aerial Vehicles (UAV) Classes 1, 2, 3, and 4; Unmanned Ground Vehicles (UGV)—the Multifunction Utility/Logistics and Equipment (MULE), the Armed Robotic Vehicle (ARV), and the Small (manpackable) Unmanned Ground Vehicle (MUGV); Unattended Ground Sensors (UGS); and Unattended Munitions—the Non-Line-of-Sight (NLOS) Launch System (LS) and Intelligent Munitions Systems (IMS).

There are eight manned systems: the Infantry Carrier Vehicle (ICV); Command and Control Vehicle (C^2V); Reconnaissance and Surveillance Vehicle (RSV); Line-of-Sight, Beyond-Line-of-Sight Mounted Combat System (LOS/BLOS MCS); NLOS-

Mortar; Medical Vehicle (MV); the FCS Recovery and Maintenance Vehicle (FRMV); and the Non-Line-of-Sight (NLOS) Cannon.

Decisive warfighting is about fires and maneuver: fires enable maneuver, and maneuver enables fires. Joint and organic close, supporting, indirect fires destroy the enemy, suppress the enemy's capabilities, protect our forces and enable ground units to maneuver. The ICV, the Unattended Munitions NLOS–LS, IMS, C^2V, MCS, NLOS-Mortar, and NLOS Cannon are important elements of the FCS that will enable the Objective Force to conduct distributed and simultaneous joint combat operations. With joint fires, the NLOS cannon is critical to support and protect our land forces in hostile environments. NLOS–LS NetFires is a platform-independent family of missiles with precision attack and loitering capability. Both Precision-Guided Mortar Munitions and Excalibur precision cannon munitions will enhance organic maneuver fires. A new, joint fire support, battle command and fire support architecture will allow rapid engagement of targets by any Army or joint asset.

For over 227 years, soldiers have remained the centerpiece of our formations. The Land Warrior program—another key S&T initiative—responds to this legacy and enhances our soldiers combat power generation capability. The Land Warrior program will develop a lightweight, low observable, enhanced-armor protection, fighting ensemble for the individual Objective Force soldier. Through networked connectivity to the FCS-equipped, maneuver Unit of Action, Land Warrior soldiers will enable revolutionary lethality, mobility, survivability, and sustainability for the individual warfighter while reducing logistics demands.

Future Combat Systems are networked in the joint C^4ISR architecture—including networked communications, networked options, sensors, battle command systems, training, and both manned and unmanned reconnaissance and surveillance capabilities. These networked systems will dramatically enhance situational awareness and understanding and operational level synchronization well beyond today's standards. Improved C^4ISR capabilities will enable network-centric Objective Force operations. The results of the investments will allow leaders to capitalize on sensor and processing technology to see, understand, and shape the battlespace before the enemy can react—increasing combat force effectiveness and survivability. The S&T program will develop and demonstrate real-time, continuous situational understanding by integrating data from manned and unmanned air- and ground-based sensors.

S&T investments in military logistics are an important enabler for the Objective Force. We are placing our emphasis on sustainment's big drivers—fuel, ammunition, maintenance, and water—to dramatically reduce our logistics footprint and lift requirements in these areas. Key technologies include on-board water generation, real-time logistics command and control processes and distribution management, enhanced multi-purpose munitions and packaging, efficient propulsion and power technologies, real-time diagnostics and prognostics, and Micro-Electro Mechanical Systems (MEMS).

TRANSFORMATIONAL SYSTEMS

Several transformational systems were under development prior to announcement of the Army Vision in October 1999. The Army has completed an extensive analysis to identify those systems that complement FCS and the Objective Force system of systems.

The Comanche helicopter is the centerpiece of the Aviation Modernization Plan (AMP) and represents the first new system to reach Initial Operational Capability (IOC) within the Army's Objective Force. Comanche is our armed reconnaissance platform with attack capabilities. It will leverage the situational awareness and situational curiosity of a scout augmented with revolutionary, state-of-the-art intelligence, surveillance, and reconnaissance (ISR) technologies. Comanche supports vertical and horizontal maneuver as an integral part of network-centric operations and extends human eyes and decisionmaking beyond the ground maneuver force. Utilizing stealth technologies, it will network with all joint C^4ISR and joint weapons systems. Comanche will leverage maximum effect of future standoff precision weapon systems such as the Common Missile and allow us to maneuver ground formations based upon full knowledge of the situation. Augmented with armed or unarmed UAVs, Comanche will fill ground maneuver's most critical battlefield deficiency—armed aerial reconnaissance—with a capable, survivable, and sustainable aircraft. The Comanche program is already well on its way to giving the Army a capability pivotal to transforming the way we will fight.

Several other transformational systems will empower the Objective Force with the knowledge dominance and battle command to provide decision superiority across the spectrum of operations. The Warfighter Information Network-Tactical (WIN–T) System, Medium Extended Air Defense System (MEADS), the Joint Tactical Radio Sys-

tem (JTRS), and the Army Airborne Command and Control System (A2C2S) will enable Objective Force joint C^4ISR capabilities. These programs will provide the tactical enterprise-level networks that will ensure seamless, secure, digital connectivity between the Objective, Interim, and today's forces. The Distributed Common Ground System—Army (DCGS–A) architecture provides Army network-centric ISR connectivity from national agencies to joint systems to Objective Force Units of Action as part of the integrated Department of Defense DCGS architecture. DCGS–A will enable interoperable tasking, processing, and exploitation capabilities. The Aerial Common Sensor brings improved signal intelligence collection and precision geolocation capabilities, as well as imagery intelligence (IMINT) and measurement and signals (MASINT) sensor packages. Another system, Prophet, uses communications intelligence to depict the battlespace and further enhance situational awareness. These C^4ISR systems greatly enhance the Objective Force's ability to gain actionable information superiority and decision dominance over all adversaries and expand the range of options for the joint force combatant commanders.

Transformational systems will provide the Objective Force with strategic and tactical maneuver capabilities. The Theater Support Vessel will support rapid intratheater lift requirements, provide the capability to conduct operational maneuver and repositioning, and enable units to conduct enroute mission planning and rehearsal. The Future Tactical Truck System will have commonality with FCS and will support the Objective Force by enabling command, control, and transportation of cargo, equipment, and personnel. The Tactical Electric Power (TEP) generators will provide power to Objective Force units where fixed power grids are not available.

Transformational systems provide the Objective Force with other important capabilities, as well. Chemical, biological, radiological, nuclear, and explosive (CBRNE) effects systems support the Objective Force across the spectrum of military operations and improve capabilities to conduct homeland security activities. Engineer, civil affairs, and psychological operations vehicles will enable mobility and enhance civil affairs and PSYOPs capabilities. The Up-Armored High Mobility Multi-purpose Wheeled Vehicle (HMMWV) will improve Objective Force soldier survivability and lethality. The Multi-Mission Radar will provide the capability to detect and track aircraft, artillery, and other projectiles, then queue appropriate weapons systems and airspace synchronization systems. The High Mobility Artillery Rocket System (HIMARS) is a lighter weight, more deployable multiple rocket launcher capability that will integrate into the joint fires network.

Bridging the Capabilities Gap—Stryker Brigade Combat Teams

Announcing our intent to field an Interim Force in October 1999, the Army responded to a capabilities gap between its lethal, survivable, but slow-to-deploy heavy forces and its rapidly deployable light forces that lack the protection, lethality, and tactical mobility that we seek. Just 2½ years later in 2002, the Army began fielding the first Stryker Brigade Combat Team to bridge that gap. In 2003—less than 4 years after the announcement—we are on track to achieve IOC with the first SBCT at Fort Lewis, Washington. Stryker Brigades will provide the combatant commander vastly increased operational and tactical flexibility to execute fast-paced, distributed, non-contiguous operations.

Stryker Brigade Combat Teams respond to combatant commander requirements across the spectrum of military operations. Optimized for combat in complex and urban terrain, the Stryker Brigades will be decisive in other major combat operations, as well. The SBCT Reconnaissance, Surveillance, and Target Acquisition (RSTA) Squadron provides both organic human intelligence capabilities and UAVs embedded at the brigade level. Its military intelligence and signal companies—working through a digitally enabled battle command bridge—leverage theater and national assets to create an information-enabled force. SBCTs will use this enhanced joint C^4ISR capability to revolutionize combat paradigms from "make contact, develop the situation, maneuver the forces" to "understand the situation, maneuver the forces, make contact at the time and place of your own choosing, and finish decisively."

Moreover, leveraging platform commonality, enhancing logistics practices and enablers, and reorganizing logistics formations, the SBCT is vastly more deployable and sustainable than our heavy forces, while significantly increasing combat power generating capabilities. Augmented for sustained operations, the SBCT requires 37 percent fewer CSS personnel than a digitized heavy brigade. While capitalizing on these advantages, developing and available technologies allow us to mass effects—rather than massing formations—and create a robust, reliable capability to conduct operational maneuver over strategic distances.

Finally, SBCTs provide an invaluable means of spearheading transformation. The SBCT trains junior officers and noncommissioned officers—tomorrow's commanders and command sergeants major—in the tactics, techniques, and procedures that will inform employment of the Objective Force.

The Army has resourced six Stryker Brigade Combat Teams to contribute to fulfilling the 1–4–2–1 defense construct and national security requirements; however, at this time, the Secretary of Defense has only authorized the procurement of the first four brigades. The Army will provide the Secretary of Defense with a plan for Stryker Brigades 5 and 6.

Fielding of the SBCTs affects the entire Army: active and Reserve components; heavy and light forces; CONUS and OCONUS. Current fielding timelines will enhance the Nation's ability to fight and win the GWOT and conduct major combat operations. The transformation of four active component brigades to SBCTs provides a rotational base with three of the SBCTs focused on the Pacific theater. One of the two SBCTs fielded at Fort Lewis will be forward-based in Europe not later than 2007. The Stryker Cavalry Regiment will support the XVIII Airborne Corps' critical need for robust, armed reconnaissance. The conversion of a Reserve component brigade to an SBCT will enhance our strategic Reserve and support the GWOT, smaller scale contingencies, and homeland defense missions. Additionally, SBCT stationing provides rapid, strategic responsiveness through power projection platforms capable of supporting four critical regions described in the 1–4–2–1 defense construct. The first SBCT will attain Initial Operational Capability in the summer of 2003.

Preserving the Army's Legacy

Today's force guarantees the Army's near-term warfighting readiness to fight and win our Nation's wars decisively. Because the Army bypassed a procurement generation, the Army's Combat Support and Combat Service Support systems now exceed their 20-year expected life cycle, and 75 percent of our critical combat systems exceed their expected half-life cycle. To maintain operational readiness while preserving resources for transformation, the Army is recapitalizing and selectively modernizing a portion of the current force. The modernization program addresses the critical issue of AC and RC interoperability and serves as a bridge to mesh these two components seamlessly. In general, the Army increased funding for programs that are clearly transformational and support the defense transformation goals, sustained funding for high priority systems that will transition to the Objective Force, and reduced funding for systems not essential to Army transformation. The Army remains committed to its 17-system recapitalization program, but we have reduced the prioritized recapitalization program from three-and-one-third divisions to two divisions.

Army Special Operations Forces are an indispensable part of the Army and will continue to provide unique capabilities to the Joint Force and Land Component Commanders. In response to the increasing requirement for Special Operations Forces in support of joint campaign plans, the Army has validated and resourced growth in its SOF structure. The recent initiatives will transfer 1,788 manpower spaces to Major Force Program–11 beginning in fiscal year 2003. Since the commencement of Army Special Operations Forces operations in support of the GWOT, the U.S. Army has provided over $1.4 billion in new equipment to enhance Special Operations Forces firepower, communications, and ground and air mobility.

The Army will remain the largest user of space-based capabilities among the Services. Army space assets are providing tangible support to the war on terrorism and Operation Enduring Freedom—they ensure Army and Joint Force Commanders optimize communications, satellite intelligence, global positioning system, imagery, weather, missile warning, and other space-based capabilities in every aspect of planning and operations. We are working diligently with the joint and interagency space community to ensure that Army and joint space systems continue to provide their essential capabilities now and for the Objective Force.

Aviation Transformation and Restructuring

Aviation transformation further demonstrates the Army's hard choices in balancing risk to resource transformation. Our interim plan—now in progress—lowers operating and sustainment costs while posturing aviation for arrival of the Objective Force by 2010. Apache modernization is an integral part of the Army Aviation Transformation Plan. The AH–64D Longbow heavy attack team will enhance domination of the maneuver battlespace and provide the ground commander with a versatile, long-range weapon system against a range of fixed and moving targets. The UH–60 Blackhawk continues to be the assault workhorse of Army aviation, executing over 40 percent of the Army's annual flying hours. We are extending the life of the UH–60 while providing it with capabilities required of the future battlespace.

Similarly, the Army is fully committed to the CH–47F Chinook program. Its heavy-lift capability is invaluable to transforming the Army. As we restructure and standardize attack and lift formations across the force, we will also adjust the stationing and alignment of Reserve component aviation units to mitigate the near-term risk.

Army National Guard Aviation comprises almost 50 percent of the Army's aviation force and is one of the Nation's most valuable assets both for wartime and for peacetime missions. Essential for successful execution of the Nation's military strategy, the ARNG currently has aviation units deployed in Afghanistan, Kuwait, Bosnia, Europe, and Saudi Arabia, as well as Central and South America.

Army National Guard Restructuring Initiative (ARNGRI)

ARNGRI seeks to transform a sizeable portion of ARNG combat structure into more deployable, flexible fighting forces to support Army requirements at home and abroad. ARNGRI will introduce two new organizations into the force structure: Mobile Light Brigades and Multi-Functional Divisions. These organizations will provide full spectrum capabilities in support of combatant commanders. The Mobile Light Brigades will operate as a subordinate unit to the Multi-Functional Divisions, which will also contain two combat support/combat service support brigades and be capable of supporting either major combat or homeland security operations.

Army Reserve Transformation Initiatives

By providing responsive force generating capability and technically trained individuals, the USAR facilitates our capability to conduct extended campaigns in multiple theaters and to sustain joint operations. Army Reserve initiatives ensure the USAR is missioned, organized, and equipped to provide interoperability across the full spectrum of military operations. Transformational organizations include experimentation forces and information operations, joint augmentation, network security, and interagency units.

The Readiness Command Restructuring Initiative and Federal Reserve Restructuring Initiative will help the USAR fulfill these new mission requirements. These initiatives lend greater flexibility to efforts that enhance responsiveness to America's foreign and domestic protection needs. Regional Readiness Commands will focus on individual and unit readiness, leader development, training and growth which will demand a new personnel system that achieves holistic life-cycle management for Army Reserve soldiers.

INSTITUTIONAL ARMY

Transforming the Way we do Business

We have made great strides in revolutionizing our business management practices by starting at the very top. Last year, we realigned our headquarters by reorganizing and realigning responsibilities of the Secretariat and the Army Staff—streamlining coordination, tasking, and decision-making—resulting in a more responsive and efficient organization. This initiative allowed us to eliminate unnecessary functions and redistribute 585 manpower spaces to accomplish core competencies.

As previously discussed, the Army has addressed the management of its installations, personnel systems, and contracting in its Transformation of Installation Management (TIM). We are aggressively pursuing efforts to outsource non-core functions. The Army will reap substantial dividends in efficiency and effectiveness through these strategic realignments of human and physical capital.

PERSONNEL TRANSFORMATION

The Secretary of the Army's key management initiative is personnel transformation. Its goal is to modernize and integrate human resource programs, policies, processes, and systems into a multi-component force that includes civilians and contractors. We will evaluate our processes and implement the most efficient program, policies, and organizations to support the Objective Force.

The centerpiece of personnel transformation is a comprehensive effort focused on a potential Army-wide implementation of unit manning and unit rotation. We are aggressively examining the feasibility of a unit manning and rotation system that would better support the new national defense strategy, improve cohesion and combat readiness within the operational Army, provide highly cohesive well-trained units to combatant commanders, and improve well-being for families by providing greater stability and predictability in assignments. The Army currently uses unit rotations in support of operational missions in the Balkans, Sinai, and Afghanistan. The Army is studying the use of unit rotations for other locations and in the war on terrorism. Units would know of these rotations well in advance, providing fami-

lies with greater predictability and enabling focused preparation, both of which contribute to increased combat readiness of the unit.

Unit manning seeks to synchronize the life cycle of a unit with the life cycle of the soldier within that unit. All soldiers and leaders would be stabilized, resulting in a significant increase in cohesion and combat readiness over our present individual replacement system. Such a system has significant second and third order effects across the force—training and leader development, recruiting and retention, unit readiness levels, and total Army end strength among others. All of these are being studied intensively, and we anticipate senior Army leadership decisions on unit manning and unit rotation in July 2003.

Third Wave

Because we operate in an environment in which there are increasing demands for military capabilities—the Secretary of the Army's Third Wave initiative seeks to ensure that we are achieving the best value possible for our taxpayers' dollars.

There are three phases to the Third Wave process. First, we determined what activities were core or non-core to the Army's mission. In the second phase, we are validating the breakout between core and non-core functions by determining if any non-core functions should be exempted. This phase has an anticipated completion date of mid- to late-February 2003. Upon completion, the Army leadership will notify Congress of the results of this phase. In the third phase, key Army leaders will assess appropriate plans to execute non-core functions, select the best means to proceed, and develop implementation plans. At this time, we do not know how many of the 214,000 jobs identified as potentially non-core functions in Phase I will be included in implementation plans. Although implementation plans will target execution in fiscal years 2005–2009, some implementation plans may be delayed beyond that period.

The implementation of competitive sourcing of non-core functions will adhere to OMB Circular A–76 and related statutory provisions. Exceptions to the requirement for public-private competition are limited, such as where 10 or fewer civilian employees perform the function or where legal restrictions against using the A–76 process apply to the function. To lower costs for taxpayers and improve program performance to citizens, OMB has undertaken major revisions to the processes and practices in OMB Circular A–76 to improve the public-private competition process.

Acquisition Transformation

The Army is leading the way in acquisition reform within DOD's broad transformation of defense acquisition policies and procedures. The Army's FCS program may prove to be the largest DOD acquisition effort that fully embraces the concepts of evolutionary acquisition and spiral development—leveraging the potential of rapid advancement within individual technologies by allowing for changes within programs as technologies mature.

The FCS program is evolutionary in its design and incorporates periodic blocked improvements within its 19 systems—the Objective Force soldier and 18 manned and unmanned systems. Within these 19 systems are 540 spirally developing technologies. The Army's use of a Lead System Integrator (LSI) enables a "best of the best" approach to selection from competing industry efforts. Our unprecedented partnership with DARPA ensures the FCS effort leverages that agency's DOD-wide perspective and resources to produce the best capability and value for the joint force.

The Army continues to revise its acquisition policies and applicable regulatory guidance. On October 3, 2001, the Army approved an acquisition reorganization that transferred control of all acquisition program management to the Army Acquisition Executive (AAE) and eliminated duplication of effort in two major Army commands. Effective October 2002, 12 Program Executive Officers (PEO) report to the AAE, and their subordinate PEOs assumed management of all Army acquisition programs, regardless of acquisition category. The plan ensures that there is only one chain of authority for acquisition programs within the Army. In addition, the plan clearly holds Program Managers responsible and accountable for the life cycle management of their assigned programs.

We have also transformed the way we conduct business through the organization of the Army Contracting Agency (ACA) that realigns our previously decentralized installation and information technology contracting processes into one organization. Responsible for all contracts over $500,000 and tasked to eliminate redundant contracts, ACA leverages Army-wide requirements to achieve economies of scale. ACA supports Army transformation efforts by aligning all base support contracting into a single organization that best supports installation management transformation. All of these initiatives use information technology to leverage enterprise-wide buy-

ing capabilities. Additionally, ACA will act as the single coordinating element and form the base from which to deploy contingency-contracting, operational support to the warfighting commands. The Army Contracting Agency and other contracting activities will continue to support small business awards in the outstanding manner it did in fiscal year 2002.

Logistics Transformation

We cannot transform the Army without a transformation in logistics. We must incorporate the logistician's view into the design of our systems even before we begin to build platforms. Collaboration between the acquisition and logistics communities will give the Objective Force the rapid deployability and sustainability we demand—by design—without compromising warfighting capability.

Designing the right logistics architecture—systems, business processes, enterprise, for example—is fundamental to success. The Army's logistics transformation will focus on creating an overarching corporate logistics enterprise that employs industries' best business practices. Within this enterprise, the Army established three principal goals for logistics transformation: enhance strategic mobility and deployability, optimize the logistics footprint, and reduce the cost of logistics support without reducing readiness or warfighting capability.

The Army's mobility and deployability goals for the Objective Force are to deploy a combat brigade within 96 hours after lift off, a division on the ground in 120 hours, and a five-division corps in theater in 30 days. To achieve this strategic responsiveness, the Army Strategic Mobility Program (ASMP) serves as a catalyst to bring about force projection changes both in the Army's and in our sister Services' lift programs.

Platforms like the Intra-Theater Support Vessel (TSV) and Inter-Theater Shallow Draft High Speed Sealift (SDHSS) provide transformational capabilities for operational and strategic maneuver and sustainment of Army formations.

Because strategic air and sealift cannot meet deployment requirements, Army prepositioned stocks (APS) ashore and afloat continue to be a critical component of Army power projection. The Army is currently participating in a joint-led worldwide prepositioning study to determine if location, mix, and capabilities in existing stocks of combat, combat support, and combat service support require adjustments to meet the defense strategy more effectively.

The Objective Force requires the Army to optimize its logistics footprint to produce a smaller, more agile, responsive, and flexible sustainment organization. To achieve this goal, we will leverage technology and innovative sustainment concepts. The Army is already developing and integrating key enablers to provide a transformed, corporate logistics enterprise. Some of these enablers include embedded diagnostics and prognostics, tactical logistics data digitization (TLDD), serial number tracking, and the Global Combat Service Support—Army (GCSS–A) system that utilizes a commercial Enterprise Resource Planning (ERP) solution. The ERP approach changes the Army's logistics automation systems strategy from one of custom code development for unique Army requirements to adoption of a commercial off-the-shelf (COTS) product.

The selective use of the Logistics Civil Augmentation Program (LOGCAP) to augment military logistics force structure provides commanders with the flexibility to reallocate manpower, resources, and materiel by adding contractors to the equation of logistics support. In addition to providing services and some supply support, these contractors can quickly deploy to establish base camps, receive and process soldiers as they begin arriving in theater, and reverse the process when soldiers go home.

Current initiatives that help reduce costs without reducing readiness or warfighting capability include the National Maintenance Program and the Single Stock Fund (SSF). As previously discussed, programs provide two basic building blocks for a revolutionary change in logistics business practices.

Advanced Medical Technology

Congress designated the Army as the lead agent for DOD vaccine, drug, and development programs for medical countermeasures to battlefield threats. This includes vaccines against naturally occurring infectious diseases of military significance, combat casualty care, military operational medicine, and telemedicine research. The program also funds Food and Drug Administration requirements for technology transition to advanced development.

The medical force provides the requisite medical intervention and care for the joint force deployed around the globe. With its Medical Reengineering Initiative (MRI), the Army Medical Department has transformed 28 percent of its Corps, and echelon above Corps, force structure to an organizational structure that promotes scalability through easily tailored, capabilities-based packages. These packages re-

sult in improved tactical mobility, reduced footprint, and increased modularity for flexible task organization. MRI supports both the current forces and the Stryker Brigades, and is the bridge to the Objective Medical Force. We have implemented innovative strategies that make the most efficient use of our budget. Medical modernization, which includes the acquisition of current medical equipment and technology, is partially funded within MRI units.

Business Initiatives Council

In June 2001, the Secretary of Defense established the Department of Defense Business Initiatives Council (DOD BIC). The DOD BIC's goal is to improve business operations and processes by identifying and implementing initiatives that expand capabilities, improve efficiency and effectiveness, and create resource savings in time, money, or manpower.

The Army has aggressively explored ways to improve its internal business practices, and has established the Army BIC, under the leadership of the Secretary and the G–8. Effective November 13, 2002, the Secretary of the Army has approved a total of 35 initiatives under the Army BIC. Subsequently, the Army submitted a number of the initiatives through the formal DOD BIC process for implementation across the Services and other DOD activities. The BIC process has helped to create a culture of innovation and inter-Service cooperation. The superb level of cooperation across the military departments, the Joint Staff, and OSD has made this possible.

A COMMITMENT TO THE FUTURE

With the continued strong support of the administration, Congress, our soldiers, our Department of the Army civilians, and the greatest industrial base and S&T communities in the world, the Army will field the Objective Force—this decade.

By 2010, we will have fielded the first operationally capable Objective Force unit equipped with the Future Combat Systems. Our Stryker Brigade Combat Teams will be providing to combatant commanders capabilities not currently available—enhanced strategic responsiveness and the ability to operate in a distributed, non-linear battlespace. Through selective recapitalization and modernization of systems that enable our soldiers to preserve our legacy today, we will have sustained a decisive-win capability at a high state of readiness as an integral part of the Joint Force. We will have significantly improved the well-being of our people and sustainment of Army infrastructure.

We remain committed to our legacy—preserving America's freedoms. In peace and in war, the Army's soldiers serve the Nation with unmatched courage, indomitable will, pride, and plain grit—as they have for over 227 years. Soldiers will continue to fight and win the Nation's wars, decisively—it is our sacred duty and our non-negotiable contract with the American people.

Chairman WARNER. Thank you very much, Secretary White. For the Department of the Navy, Secretary Johnson.

STATEMENT OF HON. HANSFORD T. JOHNSON, ACTING SECRETARY OF THE NAVY

Secretary JOHNSON. Mr. Chairman, Senator Levin, distinguished members of this committee, it is an honor to appear before you today and talk about the Department of the Navy and also the fiscal year 2004 budget. Our Nation is served by the most professional and capable naval force in the world. The Navy-Marine Corps forces alongside the Army, Air Force, and Coast Guard partners are on station in every part of the world that you saw in your trip, taking the fight on global terrorism to our enemies, deterring aggression against our Nation and our allies, and as you so eloquently mentioned, representing U.S. interests, diplomatic and military, around the world.

Today, more than 60 percent of our ships are underway, including seven deployed carrier battle groups, and 63 percent of our Marine operating forces are deployed. The Navy-Marine Corps team successes are reflective of the strong and sustained support of this committee and Congress and the Department of Defense, as well

as, as you mentioned, our dedicated civilian and contractor employees and most importantly, the great American moms, dads, wives, husbands, and children who support these forward-deployed defenders of freedom.

Our people remain our most precious resource. The fiscal year 2004 budget sustains the tremendous progress we made in readiness accounts by requesting targeted pay raises and further reduction of the out-of-pocket expenses for housing. Our recruiting goals are being met. Our retention remains very strong. With respect to personnel management transformation, the 21st century security environment demands flexibility. We are working with the Office of the Secretary of Defense to explore ways to provide greater flexibility and modernize our personnel systems.

We must now turn to the challenges, as you mentioned, of recapitalization and modernization. Two-thirds of our top-line increases for fiscal year 2004 are dedicated to increased procurement. $11.4 billion is dedicated to shipbuilding providing for the construction of seven new ships, two SSBN conversions to the SSGN, and the first ship in the cruiser conversion program. This represents a significant increase, and is a step in the right direction.

I am also pleased to report that the budget funds 100 new aircraft, sustains the MV–22 Osprey program, continues development of the Joint Strike Fighter, and continues the procurement of the Advanced Amphibious Assault Vehicle.

Moreover, we are pressing ahead with innovative ways to ensure that we are not locked into purchasing platforms whose electronics, sensors, and systems are obsolete upon delivery. We are moving forward on procuring ships not as a total package, but in a phased approach to acquire the systems in the right way, insert them at the right time, in a structured process.

As you are well aware, the acquisition process sometimes forces us to act in ways that no business would ever consider. Under the leadership of the Secretary of Defense, we are exploring opportunities to transform the process, increase flexibility and efficiency, foster creativity and innovation, streamline processes, and create savings.

We look forward to working with you on these proposals as they mature. The budget reflects a careful balancing of competing demands and risks. Most evident is our decision to accelerate the retirement of our older, most maintenance-intensive ships. We are convinced that selected near-term divestment of platforms that are least relevant to our future is the best and the most efficient way to recapitalize, modernize, and transform without compromising our ability to accomplish our mission.

In total, the retirement of legacy systems and application of transformational business practices will result in a savings of $1.9 billion. More importantly, the budget builds on the concept of transformation into our recapitalization and modernization efforts. This commitment to transformational platforms includes the next generation aircraft carrier, the CVN–21, which makes tremendous steps in aircraft carrier design, the DD(X), which is the centerpiece of the Navy's future family of ships, and the Littoral Combat Ship (LCS), which will be designed from the outset as a focused mission

ship that will use reconfigurable mission modules to counter the most challenging threats in the littorals.

In aviation, we continue to move forward with the Joint Strike Fighter, the advanced Hawkeye upgrade program, and this year, we introduce EA–18G, which will replace the EA–6B Prowler, our most maintenance-intensive aircraft in the Department of Navy.

FORCEnet is the architecture that will enable network-centric warfare to begin now. We made difficult choices in the fiscal year 2004 budget request, but we have been careful to craft it to sustain the advances made in personnel, quality of service, and readiness to balance risk while divesting legacy systems and concepts, and to invest in shipbuilding, aircraft procurement, transformational technologies, all to achieve the combined joint total force that the future demands.

I must also tell you, Secretary White mentioned that the cost of operations in support of the global war on terrorism and preparation for any contingencies in Iraq are not reflected in the budget request. A supplemental request will be necessary. I look forward to working with you and all the members of the committee in your continued strong support for our entire Armed Forces. Thank you, sir.

[The prepared statement of Secretary Johnson follows:]

PREPARED STATEMENT BY HON. HANSFORD T. JOHNSON

NAVY-MARINE CORPS TEAM: NATIONAL SEAPOWER . . . AROUND THE WORLD, AROUND THE CLOCK

I. INTRODUCTION

The Navy—Marine Corps Team continues to provide extraordinary service and value to our Nation. Throughout the past year our Naval Forces have distinguished themselves around the globe, and our sailors and marines operating in the air, on and under the sea, and on the ground—including our space cadre—remain at the leading edge of the global war on terrorism. They have demonstrated the full effect of their lethal power, from the blue water to the littorals and well beyond, engaging and destroying the enemy in areas that previously would have been considered sanctuaries from sea-based forces. At a time of great consequence for our Nation, our Navy and Marine Corps not only have "answered the call," but have done so while improving our combat readiness and retaining our sailors and marines at historic rates.

Our successes in the global war on terrorism, while significant, have not been achieved in isolation. We have worked alongside, in partnership, with our sister Services to realize the true potential of joint, interoperable forces in the new environment of 21st century warfare. The superior operational and personnel readiness levels we have been able to sustain are directly reflective of the strong, sustained support of Congress. In fiscal year 2004, we seek your support for the President's budget request to sustain the gains made to date, improve those areas where shortfalls remain, and continue transforming the Navy and Marine Corps for the 21st century.

In the balance of this statement we will describe the significant accomplishments the Navy and Marine Corps have realized during the past year, the improvements in our warfighting readiness and capabilities that are supported by the President's fiscal year 2004 budget request, and some details of our plans to transform and prepare for the challenges of the future. In assessing our request, it is important to note that our focus is on improving our ability to operate as an agile, lethal and effective member of a broader, networked joint warfighting force. To that end, we have given priority to the following overarching goals:

- Successfully prosecuting the global war on terrorism while sustaining our current readiness;
- Recapitalizing, modernizing, and transforming our Navy and Marine Corps to meet the challenges of the future;

- Fully networking our forces at sea and ashore to operate seamlessly in a joint and coalition environment;
- Continuing to invest in our sailors and marines; and
- Sustaining the quality of our operational training.

In pursuing these principal objectives, we had to make some difficult tradeoffs within our proposed program. However, our fiscal year 2004 budget request is the best balance possible among important, but often competing priorities.

II. CONTEXT FOR THE FISCAL YEAR 2004 BUDGET REQUEST: SUCCEEDING IN A TIME OF GREAT CONSEQUENCE

Last year, our Navy and Marine Corps forces built on the historic response of our sailors and marines following the September 11, 2001 attacks on our Nation. Today, our forces continue leading the way on the front lines of the global war on terrorism. More than half of our Navy operating forces and over 60 percent of the Marine Corps operating forces are currently deployed around the globe. Since the beginning of Operation Enduring Freedom more than 90,000 sailors and marines and 100 Navy ships have deployed in support of ongoing operations. Nine of our 12 aircraft carriers and half of our 12 Amphibious Ready Groups have seen action in this worldwide conflict. Additionally, over 5,000 members of the Naval Reserve and 15,000 members of the Marine Corps Reserve have been activated in support of these operations.

Even after the effective defeat of the Taliban and the liberation of Afghanistan, our Naval Forces, whether sea-based or on the ground, continue their missions. For example, marines from the 4th Marine Expeditionary Brigade (Antiterrorism) provide support and security for the U.S. State Department and the U.S. Embassy in Kabul, while others serve in Tactical Air Operations Detachments in support of air and Naval Special Warfare operations in Afghanistan.

While the global war on terrorism remains our principal focus, the Navy-Marine Corps team still operates extensively, as in the past, representing U.S. interests throughout the world. In Southwest Asia, we maintained continuous carrier presence, conducting combat operations over Iraq in support of Operation Southern Watch. At the same time, naval task forces continued Maritime and Leadership Interdiction Operations supporting United Nations economic sanctions against Iraq for the eleventh straight year. In addition to these operational commitments, over 2,000 marines participated in Eager Mace 2002, an amphibious assault exercise in Kuwait in late September 2002.

During May through August 2002, over 1,400 sailors, marines, and coast guardsmen participated in the eighth annual Cooperation Afloat Readiness and Training (CARAT) exercise with countries including the Philippines, Thailand, Singapore, Indonesia, Malaysia, and Brunei. Marines from the Third Marine Expeditionary Force participated with all CARAT nations in landing force operations as well as providing a Marine Security Element to advise and assist the armed forces of the Philippines in their efforts against global terrorism.

In the Mediterranean, Navy ships, including surface combatants, submarines, and patrol craft, operated with friends and allies in over 60 exercises with NATO and Western European nations to enforce United Nations sanctions in the Federal Republic of Yugoslavia. Marines from the 24th Marine Expeditionary Unit (Special Operations Capable) demonstrated their capability to offload and move inland to reinforce Kosovo Forces' security requirements.

Our ability to sustain the preceding breadth of capabilities, from combat operations to peacetime coalition-building exercises, came as a result of difficult choices we made—choices that have proven wise by the manner in which history unfolded last year. As you recall, in last year's budget we placed great emphasis on fixing some of the chronic problems that had been threatening our long-term ability to man, operate, and sustain the fleet we have today. We made a conscious decision to give the highest priority to our personnel and current readiness accounts. Within our critical procurement accounts we undertook a major effort to make the foundations for our shipbuilding programs healthy, even at the expense of being able to procure only five new ships in fiscal year 2003. While congressional support for supplemental appropriations did much to decrease our maintenance backlog and fill our spare parts bins, we fully recognize our fiscal year 2003 plan devoted fewer resources toward recapitalization than either the Department or Congress would have wished. Having made that difficult prioritization we committed to translating a healthy procurement base in fiscal year 2003 into earnest recapitalization in fiscal year 2004. We have kept that promise.

III. THE FISCAL YEAR 2004 BUDGET: BUILDING FROM A SOLID FOUNDATION

The Department's fiscal year 2004 budget request reflects an increase of $3.5 billion above the amount provided in the Fiscal Year 2003 Defense Appropriations Act. It also reflects the Department's commitment to get the most out of every dollar provided by the American taxpayers. We do not come to Congress with "hat in hand," but rather with a responsible request, optimally balanced across an entire department of competing priorities. In this budget request we have proposed an additional $1.9 billion for our priority programs with funds identified through our own rigorous cost savings and divestiture initiatives.

Together, these sources of additional funds have enabled us to "turn the corner" in our most pressing recapitalization efforts. Two thirds of our top line increase is dedicated toward increased procurement. This budget request reflects two more new construction ships and five more aircraft than appropriated by Congress last year. It increases our funding for transformational research and development (R&D) initiatives by a half billion dollars while consolidating the critical gains in personnel and current readiness achieved in last year's budget. The following represents the priority funding in fiscal year 2004 for the Department of the Navy:

- We propose 7 new construction ships and 100 new aircraft;
- We propose significant transformational capabilities, including the next-generation aircraft carrier (CVN–21), the next-generation destroyer (DD(X)), the LCS, two more SSBN-to-SSGN conversions, the Joint Strike Fighter (JSF), the V–22 Osprey, the Advanced Amphibious Assault Vehicle (AAAV), and the Advanced Hawkeye (E–2C) Program;
- The administration proposes a range of military pay increases from 2.0 percent up to 6.25 percent, targeted by rank and years of service, and additional reductions in out-of-pocket housing costs from 7.5 percent to 3.5 percent;
- We propose sustained funding for our key operational readiness accounts, including an increase by over $200 million for aviation depot maintenance;
- We implement Navy-Marine Corps Tactical Aviation Integration, a process that will maximize our combat power, optimize the core capability of naval aviation forces, and introduce 200 modern aircraft across the fiscal year 2004-fiscal year 2009 program; and
- We improve the quality of our operational training through our Training Resource Strategy, and provide $61 million in fiscal year 2004 toward this end.

Highlights of our fiscal year 2004 budget request are provided in the sections below.

A. Current Readiness

The fiscal year 2004 budget request builds upon the best successive 2 years in readiness budgets in more than a decade. It funds an OPTEMPO of 54.0 days per quarter for our deployed forces. This level supports the Global Naval Forces Presence Policy in terms of Carrier Battle Group (CVBG) and Amphibious Ready Group (ARG) availability as required by national security policy. However, accelerated deployment timelines and increased OPTEMPO will cause current year execution to run ahead of the existing plan.

Funding for ship maintenance will achieve more than 96 percent of the fiscal year 2004 notional goal. This reflects a virtually identical posture as compared to last year, both in terms of percent accomplishment and quantity of backlog remaining. The aggregate level of funding for ship maintenance declines from fiscal year 2003 to fiscal year 2004, due in part to the positive effects of the additional maintenance funding provided in supplemental appropriations in the previous year, and in part to the accelerated retirement of our oldest, least capable, and most maintenance-intensive ships.

Accelerating the retirement of these ships was one of the most difficult decisions we made in building this year's budget. While aggregate warfighting capability is a better metric than the number of ships in our inventory, we recognize that below a certain threshold numbers do matter. However, our analyses indicate that the near-term inactivations we are proposing provide an acceptable level of risk without compromising our ability to accomplish our mission, and that the fastest and most efficient way to recapitalize and transform the Fleet is to pursue vertical cuts in our least capable type-model series, both in ships and in aircraft, and apply those savings toward procuring new ships and aircraft.

The growing sophistication of potential threats, increasing complexity of modern warfare, advances in training technology, and the development of new weapons and tactics require more capable training facilities and methodologies. Under the leader-

ship of Fleet Forces Command, the Department has produced the Training Resource Strategy (TRS), a multi-year plan to improve inter-deployment training for CVBGs, ARGs, and Marine Expeditionary Units (MEUs). The Department is committed to implementing and fully funding these improvements.

The training technology, range, and facility improvements programmed via the TRS will ensure the long-term combat readiness and effectiveness of our deploying forces and produce a training capability superior to that existing today. The fiscal year 2004 budget will ensure deploying forces are fully prepared for the challenges of armed conflict in the 21st century.

Military lands and training ranges—including land, sea, and air training and operating areas (OPAREAs)—are necessary to ensure that realistic training opportunities exist to prepare our sailors and marines. Population growth, economic development, expansion of conservation and recreational areas, and urban and suburban sprawl, along with State and Federal environmental laws and regulations, have significantly restricted the military's access to and use of military lands, training ranges, and at-sea OPAREAs. This "encroachment" has markedly restricted our ability to train realistically and, unless checked, promises to produce further restrictions.

Our goal is not to roll back environmental protection, but to ensure that our sailors and marines are properly trained. We owe these young people realistic, quality training before we send them in harm's way. We are not looking for an exemption for everything the military does, but rather for a scientific approach that achieves an appropriate balance between environmental concerns and unique military readiness needs. We remain committed to our long tradition of excellent environmental stewardship, and our fiscal year 2004 budget will ensure our deploying forces are fully prepared for every challenge they may encounter.

B. Personnel Readiness

Our ships, submarines, and aircraft have no "asset value" to the Nation until manned by trained, educated, and motivated people. Sailors and marines—along with our civilian workforce—remain the strong and steady foundation of our naval capabilities. The families of our service members also are vital to our readiness. It is a fact that we recruit sailors and marines, but we retain families, and we recognize that the effectiveness of our forces is dependent in large measure on the support they receive from their loved ones.

Over the past 2 years we realized significant gains in the manpower arena that translated directly into increased personnel readiness. In the process of maintaining an increased readiness posture while transforming antiterrorism/force protection positions, Navy operated just below the congressionally-allowed maximum end strength flexibility in fiscal year 2002. Doing so permitted us to sustain CVBG and ARG manning readiness near 100 percent. Our ability to surge deploy forces around the globe in response to recent events is testimony to the success of our personnel readiness posture. Over the course of fiscal years 2003 and 2004, we anticipate end strength will decrease slightly to reflect force structure changes.

Active Duty

The Navy and Marine Corps met recruiting and accession goals in 2002, and continue to attract America's finest young men and women to national service. The Marine Corps notched its seventh year of meeting monthly and annual recruiting goals. Navy achieved its recruiting goals for a fourth consecutive year. Both Services are well-positioned for success in meeting 2003 officer accession requirements. The sailors and marines entering active duty truly represent our country's best and brightest. In 2002, 92 percent of Navy's enlisted accessions were high school graduates (up from 90 percent in 2001), while the Marine Corps accessions of high school graduates rose 1.3 percent to 97.5 percent.

Retention rates in 2002 remained at record levels, with 58 percent of eligible first-term sailors deciding to "stay Navy." The Marine Corps met retention goals in 2002 in record time, achieving its highest occupational specialty match to date while also experiencing its highest officer retention rate in 18 years. Sailors and marines have a sense of purpose and the desire to serve during this critical juncture in our Nation's history. We provide them unique opportunities to grow professionally and personally, to achieve and be recognized, and to lead. They see improvements to their quality of service, and they appreciate the outstanding compensation and benefits provided to them and to their families. Our recruiting and retention success is reflected in the fully manned and operationally capable CVBGs and ARGs currently on station around the globe.

We are fully committed to providing the finest education and training for these bright young minds, as befits their place as future leaders of the Navy and Marine

Corps. Graduation from "Battle Stations" or the "Crucible" is but the first step toward achieving the technologically advanced force required to conduct naval warfare in the 21st century. Our "Revolution in Training" is establishing a career-long learning continuum, ensuring the continuous personal and professional development of every service member.

Successful as we are in attracting and retaining the best, we must not lose focus on people programs. Our immediate goals include:

- Increase Navy recruit high school graduation rates from 92 percent to 94 percent. Marine Corps recruit high school graduation rates are currently between 97 percent and 98 percent;
- Increase the percentage of enlisted Navy recruits with previous college experience or technical/vocational training;
- Continue the Training Transformation started by Navy Task Force EXCEL (Excellence through Commitment to Education and Learning), and Marine Corps training continuum synchronization, including partnering with industry and academia to impart individual training and education;
- Continue to develop a live, virtual, and constructive training environment both within the Department and for use in conjunction with the Joint National Training Capability; and
- Explore innovative manning initiatives such as the Optimum Manning program, which relies on new technologies and creative leadership to reduce ship manning.

Congressional support for a targeted pay raise in fiscal year 2004, which recognizes and reaffirms the value of our career force, is critical to staying the course. So, too, is continuing the reduction of out-of-pocket housing expenses and the extension and enhancement of essential special pay and bonus authorities. The Selective Reenlistment Bonus remains an important tool for retaining our critical skill personnel.

Reserves

Our Reserve community remains an integral part of our Navy and Marine Corps team, with 88,000 naval reservists and 40,000 Selected Marine Corps reservists serving today. The seamless integration of the Reserve and active components as a total force in the global war on terrorism has been a resounding success. The dedicated service, invaluable resources, and selfless sacrifices to duty each of these "citizen sailors and marines" provides on a daily basis are integral to operational success. We have recalled over 15,000 Navy and Marine Corps reservists as of mid-January 2003. These patriots have provided force protection, staff augmentation, intelligence, and warfighting skills to the Nation's war efforts.

The Naval Reserve constitutes 19 percent of the Navy's total force, with an additional 69,000 sailors serving as Individual Ready Reservists (IRRs). In 2002 the Naval Reserve met both its officer and enlisted recruiting goals, the result of significant recruiting program efforts. These Reserve Forces provide our inter-theater airlift, harbor defense, naval embarked advisory teams, and Naval Coastal Warfare capabilities. In addition, a large portion of the Navy's port cargo handling support, Mobile Construction Battalions, intelligence, and medical capabilities are resident in the Reserves.

The Selected Marine Corps Reserve comprises nearly 25 percent of the Marine Corps' warfighting capability, with an additional 58,000 marines serving as Individual Ready Reservists (IRRs). The Marine Corps Reserve's contribution to the global war on terrorism continues with individuals and units mobilized to provide a wide variety of support. The additional mobilization of hundreds of Individual Mobilizations Augmentees and IRRs provided a critical surge of ready expertise and staff augmentation to warfighting commands, both Joint and Marine.

Civilian Personnel

The civilian workforce, currently totaling approximately 186,000, forms an essential role as part of our total force. Hard-working and dedicated civilian employees can be found in every major command, working alongside our sailors and marines, performing the vital work of the Department. We continually refine and shape this vital work force for current and future missions. Twenty-one civilian occupational groups are targeted specifically for intensive active management. These include science and engineering, logistics, contracting, human resources, and financial management. Just as it is essential to recruit and retain the very best sailors and marines, it also is essential to recruit and retain the best and brightest civilians. We are in a competition for talent, and your support for a flexible set of civilian human resource management tools will enhance our efforts to hire, develop, and retain this quality work force.

C. Shipbuilding

The fiscal year 2004 budget request provides funding for seven new construction ships, the final two of four planned SSBN-to-SSGN conversions, and the first ship in our Cruiser Conversion program. In all, our shipbuilding program includes $11.4 billion, a significant increase above last year. Additionally, we invest more than $1.5 billion for R&D in transformational shipbuilding programs such as CVN–21, DD(X), LCS, and SSGN (discussed later in this statement). The seven new ships include:

- Three *Arleigh Burke* class (DDG–51) destroyers. These ships are being procured as part of a multi-year procurement (MYP) of 10 DDG–51 ships over the period fiscal year 2002 through fiscal year 2005. In addition to the cost savings from this MYP, the Navy and its two principal DDG builders successfully negotiated a workload swap arrangement in June 2002 in which General Dynamics' Bath Iron Works will transfer LPD–17 ship construction work to Northrop Grumman Ship Systems in exchange for additional DDG–51 work. This arrangement will optimize production efficiencies and stabilize workload at all shipyards building DDG–51 and LPD–17 class ships.
- One *Virginia* class (SSN–774) fast attack submarine. The fiscal year 2004 ship marks the initial year of a seven-ship, 5-year MYP that will achieve significant savings while increasing submarine procurement to two per year starting in fiscal year 2007. The first *Virginia* class submarine (SSN–774) will deliver in June 2004.
- One *San Antonio* class (LPD–17) amphibious transport dock. The fiscal year 2004 budget provides full funding to procure the sixth ship of this class. The program is on track, and represents an urgently needed contribution to the Marine Corps' amphibious lift requirements.
- Two *Lewis and Clark* class (T–AKE) auxiliary cargo and ammunition ships. Fiscal year 2004 funding procures the fifth and sixth ships of this class to continue recapitalization of our support fleet. Delivery of the lead ship is expected in fiscal year 2005.

Beginning in fiscal year 2004, the Cruiser Conversion Program will provide selected *Ticonderoga* class Aegis-equipped cruisers with essential land attack, force protection, and Area Air Defense Commander capabilities, extending their mission-relevant service life to 35-plus years.

Beyond the new construction ships and conversions, the fiscal year 2004 budget request provides additional incremental funding for LHD–8, service life extension for three Landing Craft Air Cushioned, and initial R&D efforts on the LHA Replacement (LHA(R)), scheduled for procurement in fiscal year 2007. In LHA(R) the Department is pursuing a far more capable replacement for aging amphibious ships such as the LHA. While the initial stages of design move forward, LHA(R) will offer many improvements over the LHA it will replace, and will set the stage for further development toward a new design that could offer capabilities such as concurrent flight operations of helicopters and fixed wing aircraft.

D. Aircraft

The Department's fiscal year 2004 budget maximizes the return on aviation investment, primarily through the use of MYP arrangements for the F/A–18E/F (both airframe and engine), the E–2C, and the MH–60S. We also have agreed to enter a joint MYP contract with the Air Force to procure KC–130Js to replace the Marine Corps' fleet of KC–130F/Rs. In all, the fiscal year 2004 budget procures 100 new aircraft, including:

- 53 tactical, fixed wing aircraft (42 F/A–18E/F, 2 E–2C and 9 MV–22);
- 28 helicopters (13 MH–60S, 6 MH–60R and 9 UH–1Y/AH–1Z);
- 16 trainer aircraft (15 T–45 and 1 T–39); and
- 3 support aircraft (2 UC–35 and 1 C–40A)

The F/A–18E/F Super Hornet is the Navy's principal tactical aviation recapitalization program until we get to the JSF. The fiscal year 2004 budget includes $3.0 billion for 42 planes, which constitutes the final installment of a fiscal year 2000—fiscal year 2004 MYP contract. Deliveries remain ahead of schedule, and the first squadron of F/A–18E/F recently conducted combat operations aboard U.S.S. *Abraham Lincoln* (CVN–72). Of note, a variant of the F/A–18 airframe, the EA–18G Growler, has been selected as the Navy platform to replace the aging EA–6B Prowler. By using a common airframe, the EA–6B follow-on will deliver at lower cost while providing growth potential for improved future electronic warfare systems. The Marine Corps expects to fly the EA–6B (ICAP III) until approximately 2014 to 2015 before transitioning to a new Electronic Attack aircraft.

Based on successful flight testing results, the Department felt confident to continue the minimum sustaining rate for the V–22 Osprey program and has requested nine MV–22s along with two CV–22s requested by the Air Force. Additionally, fiscal year 2004 funding supports key elements of the Department's helicopter master plan. We have requested procurement of 13 MH–60S platforms (organic mine countermeasures, combat search and rescue, special operations and logistics missions) and 6 MH–60R platforms (tactical support missions for surface combatants and aircraft carriers). Together, these will continue replacing the Department's aging fleet of H–46, SH–3, SH–60B, and SH–60F helicopters. Fiscal year 2004 will mark the first year of procurement in the AH–1Z/UH–1Y program. These aircraft improve many capabilities for the Marine Corps, including increased payload, range and time on station, improved sensors and lethality, and 85 percent component commonality.

E. Weapons

The fiscal year 2004 budget request supports the Department's objective to develop, upgrade, and replace weapons and weapon systems to ensure we maintain our warfighting edge.

Our precision-guided munitions inventory will continue to improve in fiscal year 2004 as the Tactical Tomahawk (TACTOM) system ramps up to full rate production. TACTOM will accelerate the transition of our land attack missile inventory from the older Tomahawk Land Attack Missile to the newer, more capable, less costly TACTOM. The budget request sustains the maximum Department of the Navy production rate for the Joint Direct Attack Munition of 1,000 units per month while procuring over 5,000 Laser Guided Bomb kits. Production of the Joint Standoff Weapon (JSOW) baseline variant (dispenser) increases in fiscal year 2004, and the JSOW unitary variant (penetrator) enters full rate production.

Several land attack R&D efforts central to future littoral warfare continue in fiscal year 2004. Advanced naval gun technologies will enhance fire support to marines operating ashore. Evolving toward a fiscal year 2005 "shoot-off," either the Extended Range Guided Munition or the Autonomous Naval Support Round will enhance the range and accuracy of Navy 5-inch guns. The Advanced Gun System will provide the next generation of surface combatants with a modular, large caliber gun system including an automated magazine handling system.

F. Key Warfighting "Core Competencies"

While the fiscal year 2004 budget request devotes a significant amount of resources toward recapitalizing and transforming to meet future requirements, it also provides solid support for our longstanding naval "core competencies" of Anti-Submarine Warfare (ASW), Mine Warfare (MIW), Ship Self Defense (SSD), and Air Defense (AD).

ASW

ASW remains a challenging mission area, particularly in the shallow water littoral regions populated by modern, quiet submarines. The fiscal year 2004 budget request supports numerous improvements in ASW. The Improved Extended Echo-Ranging is incorporated into the USQ–78B Acoustic Processor, which will improve large area acoustic search capability on our Maritime Patrol Aircraft. Further enhancements to our capability for large area search will be provided by acquiring the Automatic Periscope Detection and Discrimination system. Additionally, the capability for our surface combatants to survive attacks from threat torpedoes will be enhanced through the Surface Ship Torpedo Defense effort. The success of the Acoustic Rapid COTS Insertion (A–RCI) program in providing significant improvement in ASW sensor processing for our submarine force has spawned similar efforts in submarine combat control, communications, and upgrades to the surface fleet's SQQ–89 combat suite. These programs validate the Navy's decision to use commercially available technology to deliver superior performance at less cost.

MIW

The Navy continues to make advances in MIW capabilities, and our emphasis on organic capabilities to counter the growing mine threat is enhancing our ability to "get to the fight." The fiscal year 2004 budget continues the development and acquisition of the Long-Term Mine Reconnaissance System (LMRS), which is on track for a fiscal year 2005 IOC on *Los Angeles* class submarines. LMRS will provide a clandestine reconnaissance capability for mines and mine-like objects. The fiscal year 2004 budget also includes funding for the development and acquisition of the Remote Mine-hunting System (RMS), a surface ship—launched and recovered semi-submersible vehicle. RMS has a fiscal year 2005 IOC with near-term fielding planned for DDGs 91–96. RMS also is a strong candidate for future deployment on

the LCS. To meet the Department's goal of an organic mine warfare capability by fiscal year 2005, the fiscal year 2004 budget continues the development and integration of five Organic Mine Subsystems into the MH–60S platform.

SSD

We continue to invest in upgrading our Ship Self Defense programs. Fiscal year 2004 funding covers the spectrum from electronic countermeasures to missiles to guns. The Surface Electronic Warfare Improvement Program (SEWIP) is a spiral development effort initiated to provide a robust, full spectrum electronic warfare system following cancellation of the Advanced Integrated Electronic Warfare System in fiscal year 2002. SEWIP will build on the legacy SLQ–32 system to field capabilities against next-generation threats. The current budget expands procurement of the Close-in Weapons System, Block 1B. The internationally-procured Rolling Air Frame Missile will provide ship self-defense against missiles as part of a layered defense. Additionally, we are pursuing installation of minor caliber guns on our deploying ships to improve our ability to counteract a small boat threat in the 0 to 8,000 yards range. We soon will install stabilized minor caliber guns on two DDGs.

AD

The fiscal year 2004 budget requests funds to develop the Extended Range Active Missile (ERAM). ERAM will enable over-the-horizon engagements against the most advanced anti-ship and land attack cruise missiles, and represents an important step in projecting area defense landward from the sea.

G. Maneuver Warfare

The fiscal year 2004 budget supports the continued development and fielding of all equipment used by the Marine Corps' maneuver forces. This year, we identify approximately $340 million for R&D and procurement of the Advanced Amphibious Assault Vehicle (AAAV). Last year we procured the first AAAV, which will serve as a full-up system, live-fire test vehicle. We will procure 186 systems over the remainder of the fiscal year 2004-fiscal year 2009 program. Scheduled for IOC in fiscal year 2008, the AAAV will provide a unique combination of offensive firepower, nuclear-chemical-biological protection, and high speed mobility on land and on sea.

The fiscal year 2004 budget will fund the next 60 Lightweight 155-mm (LW155) Howitzers. These units will provide significant improvements in Marine Corps fire support over the current M198 system. Compatible with all U.S. and NATO 155mm rounds, the smaller footprint of the LW155 will reduce strategic sealift requirements while providing improved accuracy and greater lethality.

H. C^4I, Space and Network Initiatives

The Department's Command, Control, Communication, Computers, and Intelligence (C^4I) and Space programs are an integral part of network-centric operations, enhancing the combat capability of our Naval Forces and serving as critical enablers of a transforming Navy and Marine Corps. Our concept of Information Technology for the 21st century (IT–21) is providing a common backbone for C^4I systems to be linked afloat, ashore, and to the Internet. IT–21 combines satellite and line-of-sight communication paths with commercial IT hardware and software to establish secure and unclassified Internet Protocol network connectivity for ashore and mobile Naval Forces. This is a critical first step toward transformational network-centric operations.

Our next major objective is to integrate the successes of IT–21 and incorporate them across the full spectrum of naval operations to achieve significant improvement in knowledge management and operational performance. This full dimensional approach, called FORCEnet, will provide the operational construct and architectural framework for naval warfare in the information age. We will address FORCEnet in greater detail later in this statement.

Support from space is essential to many Navy and Marine Corps operations today, and grows increasingly important as the force becomes more network-centric. The fiscal year 2004 budget supports the Department's expanding efforts in space, including assured, high data rate satellite communications, precision navigation and targeting, intelligence, surveillance and reconnaissance systems and environmental support.

The fiscal year 2004 budget continues critical enhancements that will provide our forces with a common tactical picture. Cooperative Engagement Capability (CEC) will provide real time exchange of fire control quality data between battle force units and will permit a single, identical tactical picture. The Block 2 version will reduce cost, size, and weight, with procurement beginning in fiscal year 2006. The Naval Fires Control System and Joint Fires Network will use existing fire control infrastructure to serve as the nerve center for surface land attack by automating

shipboard land attack battle management duties, incorporating improved land attack weapons systems, and utilizing battlefield digitization.

The Navy/Marine Corps Intranet (NMCI) serves as the principal element of the IT–21 effort ashore and is a key enabler of IT transformation. Business Case Analyses conducted over the last 2 years have demonstrated that the NMCI strategy, characterized by having a single private sector entity provide IT services under a long-term commercial seat management contract is, in fact, a sound business decision compared to the way IT requirements previously were satisfied. Last year, Congress approved a 2-year extension to the base performance period of the original NMCI contract, extending coverage through fiscal year 2007. Fiscal year 2004 funding of $1.6 billion continues user seat roll-out and cutover to the NMCI architecture, progressing toward a target end-state of 365,700 seats.

I. Missile Defense Initiatives

The Department of the Navy is poised to contribute significantly in fielding initial sea-based missile defense capabilities to meet the near-term ballistic missile threat to our homeland, our deployed forces, and our friends and allies. We are working closely with the Missile Defense Agency (MDA) to upgrade six DDGs in calendar year 2004 and another six in calendar year 2005 for ICBM surveillance and tracking duties. We also are supporting MDA's procurement of up to 20 Standard Missile interceptors to provide a limited at-sea capability to intercept ballistic missiles in the ascent and mid-course phases of flight. Finally, U.S.S. *Lake Erie* (CG–70) will be assigned to MDA to facilitate a more robust testing program for missile defense. Our sea-based missile defense programs experienced tremendous success on the test range during 2002, and we look forward to building on these successes to accelerate development of this vital capability for our Nation.

J. Shore Infrastructure

The Department remains dedicated to maintaining and improving the quality of our support to sailors and marines. Maintaining and improving an aging infrastructure, while recapitalizing our operating forces, requires disciplined choices and innovative approaches.

The fiscal year 2004 housing program continues the Department's course toward the goal of eliminating inadequate family housing by 2007. The Navy's three-pronged strategy of improving allowances to service members, privatizing, and continuing traditional military construction is proving very successful. Increased Basic Allowance for Housing (BAH) is spurring local communities to provide necessary housing on the open market. Recent analysis shows we have reduced the total requirement for Government-furnished housing by over 9,500 units.

Public/private housing ventures are allowing us to achieve more with less commitment of resources. In fiscal year 2003, we will privatize over 10,400 homes in five locations; in fiscal year 2004, we are increasing this by another 7,000 units. Where BAH and privatizing do not apply we are renovating or replacing our inventory.

We are building on our successes in family housing to help achieve our Homeport Ashore Program. Three bachelor housing Public-Private Venture (PPV) projects are being developed that could triple the number of spaces we would have been able to provide in San Diego, Norfolk, and Camp Pendleton under traditional military construction.

The fiscal year 2004 Military Construction and Sustainment program reflects difficult but necessary trade-offs between shore infrastructure and fleet recapitalization. The Department remains committed to achieving a 67-year recapitalization rate by fiscal year 2008. In pursuing that goal, we will explore innovative solutions to provide safe, efficient installations for our service members, including design-build improvements, more efficient facilities, and BRAC land sales via the GSA Internet.

K. Business Practices

We have embarked on a mission to improve the business practices of the Department. Every dollar saved by working smarter or by ending outdated methods of operations is another dollar that can be used for our sailors and marines to equip, train, or fight.

Information is key to improving the way we do business. Better information makes for better decisionmaking, both on the battlefield and at the budget table. We have four pilot programs in place utilizing enterprise resource planning (ERP), which aim to improve the quality of information available to our decisionmakers. These pilot projects will eliminate dozens of incompatible computer databases and the business processes that once supported those databases. Even more importantly, ERP should produce financial and managerial information that is more complete, more accurate, and more timely. Our focus now is on converging these pilots to

achieve even greater synergy of management information across a broader spectrum of the Department, and working with the Department of Defense Comptroller to ensure these efforts are advancing the uniform business management architecture under development.

In addition to better information, we need flexible and innovative tools to help manage the Department. Some of these tools, like strategic sourcing, are being used already. Competition helps achieve the best quality support to the sailor and marine at the lowest possible cost by introducing the discipline of the marketplace. The acquisition process still needs considerable reform. We owe it to every sailor and marine to ensure that today's technology arrives in their hands today, not tomorrow. It still takes too long from lab to live fire. Finally, the Navy and Marine Corps need better tools to recruit and manage the civilians who support our warfighter.

IV. NAVAL POWER 21: A TRANSFORMATIONAL VISION FOR THE 21ST CENTURY

Fundamentally, our Navy and Marine Corps exist to control the seas, assure access, and project power beyond the sea. Our vision, Naval Power 21, is built upon three pillars:

- We assure access. We assure sea-based access worldwide for military operations, diplomatic interaction, and humanitarian relief efforts.
- We fight and win. We project power to influence events at sea and ashore both at home and overseas.
- We are transforming continually to improve. We are transforming concepts, organizations, doctrine, technology, networks, sensors, platforms, weapon systems, training, education, and our approach to people.

Although the Navy and Marine Corps team remains the greatest maritime force in the world, the emerging challenges of the 21st century demand a joint, netted, power projection force that offers modern and ever-evolving combat capability. Together, under the supporting service visions of Seapower 21 and Marine Corps Strategy 21, we will provide funding for a full array of transformational initiatives in our R&D, investment, and operational programs. Evidence of the scope and magnitude of these changes is highlighted by our transformation:

- from a single new class of destroyer to a family of surface combatants tailored for the full range of 21st century missions;
- from a Cold War force of 18 SSBNs to a 21st century force of 14 SSBNs and 4 SSGNs;
- from evolutionary aircraft carrier improvements to the revolutionary promise of CVN–21;
- from no ballistic missile defense (BMD) capability to limited sea-based BMD capability; and
- from competing Navy and Marine Corps tactical aviation to an integrated naval tactical aviation.

A. Transformational Capabilities to Assure Access and Project Power

The Navy and Marine Corps continue to meet the imperative of transformation. Our "way ahead" for the future capitalizes on transformational ideas that facilitate our recapitalization goals. The fiscal year 2004 budget request includes funding for initiatives in shipbuilding, aviation, and C^4I that promise dramatic improvements in assuring access and projecting power.

In shipbuilding, we are fulfilling the President's stated goal to "skip a generation" of technology by restructuring our previous two-step (CVNX–1 and CVNX–2) evolutionary acquisition approach into a single transformational ship design that accommodates continuous evolution through the life of the class. The new design, named CVN–21, sustains the original development and construction schedule from CVNX–1, but accelerates many critical technologies previously planned for the second step ship, CVNX–2. CVN–21 will feature a new propulsion plant, a greatly expanded electrical generation and distribution system, a new/enlarged flight deck, an improved sortie rate generation over CVNX–1, an electro-magnetic aircraft launching system (EMALS), a new advanced arresting gear, improved weapons and material handling systems, and improved survivability features—all with 800 fewer crew members. In support of this technology acceleration we have added significant funding across the fiscal year 2004 to fiscal year 2009 program while providing $1.5 billion in fiscal year 2004 alone.

The centerpiece warship of our future surface combatant "family of ships," the DD(X), is on track to move to an initial construction contract award in fiscal year 2005. Fiscal year 2004 funding of $1.05 billion will enable further development of key electric drive, power grid, and combat system components. Through a spiral de-

velopment acquisition process, DD(X) will be the principal technology engine that will feed the entire family of ships.

The fiscal year 2004 budget requests approximately $160 million in R&D to begin moving out with the next member of our future surface combatant "family of ships," the LCS. A networked, lethal, small, fast, stealthy, and highly maneuverable ship, LCS will be designed from the keel up as a focused mission ship capable of employing manned and unmanned mission modules to counter some of the most challenging anti-access threats our Naval Forces may encounter close to shore—mines, quiet diesel submarines, and swarming small boats. Last year, we continued experimenting with a range of innovative hull forms, and Congress supported us so we could get the program moving this year, avoiding a critical 1-year delay. The fiscal year 2004 effort will be aimed at defining requirements, improving our knowledge base for selecting an LCS design, and beginning mission module development.

The fiscal year 2004 budget request contains nearly $1.2 billion for SSBN-to-SSGN conversion. This effort will provide a near-term transformational capability to the Nation by removing four *Ohio* class submarines from their strategic mission, refueling their reactors to permit an additional 20 years of operation, and converting them into conventional strike platforms capable of carrying more than 150 Tomahawk missiles and deploying over 60 Special Operations Forces. Funding to commence the first two conversions was provided in fiscal year 2003; this year's request supports beginning the final two conversions.

The fiscal year 2004 budget provides $2.2 billion to continue development of the Joint Strike Fighter (JSF), a stealthy, multi-role fighter aircraft designed to be an enabler for Naval Power 21. JSF replaces the Navy's F–18A/C Hornet variants and the Marine Corps' AV–8B Harrier and F/A–18C/D Hornet while complementing the Navy's F/A–18E/F Super Hornet. JSF offers dramatic improvements in affordability and supportability. It has completed all major milestones to date on time, and remains on track to IOC for the Marine Corps in 2010 and for the Navy in fiscal year 2012.

A critical enabler of transformational intelligence, surveillance, and reconnaissance, the E–2C Advanced Hawkeye Program will provide a robust overland capability against current and future cruise missile-type targets. The fiscal year 2004 budget invests over $350 million for continued development. IOC is planned for fiscal year 2008 with a total procurement of 66 systems.

As the global war on terrorism has demonstrated, unmanned technology will play an ever-increasing role in the battleground of the 21st century. The Department's fiscal year 2004 budget invests more than $300 million across a series of UAV programs, including Tactical UAVs, Maritime Surveillance UAVs, and an Unmanned Combat Air Vehicle (UCAV) initiative, developed in partnership with the U.S. Air Force. Beneath the sea, we will invest more than $80 million in Unmanned Undersea Vehicles (UUVs) that are being developed to enhance capabilities in minefield reconnaissance and other submarine missions.

B. Transformational Organizations and Operational Concepts

Beyond pure technology, transformation also includes revolutionary methods for achieving dramatically greater utility out of our existing assets. The Department's initiative to integrate its tactical aviation capabilities is one such transformational story. Navy and Marine Corps tactical air integration will maximize forward deployed combat power and optimize the core capability of naval aviation forces. Its positive impact will be felt across the Department's entire tactical aviation enterprise, from leaner, more capable fighting formations to streamlined procurement requirements (tactical and training) to manpower savings. In total, this innovative program promises to save $975 million over the fiscal year 2004 to fiscal year 2009 program and provide approximately $19 billion in cost avoidance from fiscal year 2007 to fiscal year 2012.

To support the ability of forward-based Naval Forces to respond to a host of scenarios, the Navy and Marine Corps are exploring more robust strike capabilities for the ARG/MEU team. The Expeditionary Strike Group pairs the traditional ARG with surface combatants and an SSN so the force has greater capability to conduct independent operations in the "deter" and "swiftly defeat" scenarios outlined in our defense strategy.

FORCEnet is the Department of the Navy's catalyst for operational transformation. In the realm of network-centric warfare and operations, it will enable orders of magnitude increases in combat power to ensure decisive influence and warfighting success across the full spectrum of military operations in the information age. FORCEnet is not a system. It is the architecture by which we will integrate our sensors, networks, decision aids, weapons, and warfighters into a networked, distributed combat system, scalable across the entire range of conflict

from seabed to space and sea to land. Leveraging powerful network infrastructure ashore, including NMCI and the various constituents of IT–21, with legacy and developing tactical networks at sea, including those as diverse as CEC, Joint Fires Network and the E–2C Advanced Hawkeye Program, FORCEnet will bring a dramatically expanded "toolbox" of capabilities to the joint warfare commander. Through FORCEnet the Navy and Marine Corps will transform to a joint, netted, distributed, and forward stationed force.

C. Transformational Initiatives for our People

Sea Warrior is the process of developing 21st century sailors. Curriculum Mapping is the Marine Corps equivalent. These initiatives identify the knowledge, skills, and abilities needed for mission accomplishment; apply a career-long training and education continuum; and employ a responsive, interactive career management system to ensure the right skills are in the right place at the right time.

Modern Naval Forces are manned by streamlined teams of sailors and marines who fight and manage some of the most complex systems in the world. We need sailors and marines who are highly educated and expertly trained. They must be creative thinkers and life-long learners, and it is for them that we undertook the Revolution in Training. They also deserve a human resource management and detailing system that provides information and choice, both to the sailor and gaining commands, so that informed career decisions can be made. To this end, we are moving toward an interactive and incentivized distribution system that includes team detailing, web job listings, an information call center, and comprehensive and extensive engagement of our detailers with individual sailors to help shape their careers.

At sea, we are exploring two initiatives that promise a revolution in the way we man our ships. First, we have begun an "Optimal Manning Experiment" on board U.S.S. *Milius* (DDG–69) and U.S.S. *Mobile Bay* (CG–53) to develop a more efficient model for the shipboard manning requirements of the 21st century. Also, we have begun a crewing experiment titled "Sea Swap," in which we will deploy two destroyers for 18 months consecutively, rotating the entire crews at 6-month intervals. This initiative will realize significant operational savings by avoiding multiple 6-week transits to and from the deployed operating areas.

D. Transformational Initiatives for Doing Business

Our ability to recapitalize and transform stems in large measure from a vigorous divestiture program that forced us to make hard choices across every facet of the Department's operations. We looked hard at older systems with their limited capabilities and high infrastructure costs (maintenance, parts, training, etc.) and ultimately decided to accelerate retirement of 11 ships and 70 aircraft. We reorganized and then reduced the Secretary of the Navy Headquarters Staff by 25 percent. We divested ourselves from more than 50 systems and eliminated 70,000 legacy IT applications from an original baseline of 103,000. In the aggregate, these difficult decisions yielded $1.9 billion for reinvestment in higher priorities.

In addition to divestiture initiatives, we are transforming the way we manage the entire Department's internal affairs. Perhaps nowhere is this more evident than in our shipbuilding programs. Instead of locking ourselves into "pre-ordained obsolescence" through rigid designs for hull, combat, and information systems that take years to execute, we are capitalizing on computer-aided, design-build strategies in which we harvest commercial, "state-of-the-art" technologies and insert them at the optimum time as the construction process moves from hull to combat system suite to information systems. We have undertaken some remarkable initiatives within our acquisition community that have stabilized key industrial bases, expanded our ability to capitalize on the best commercial practices, and laid a strong foundation for controlling the costs of our major acquisition programs.

We are working with industry as partners across the full breadth of our shipbuilding programs. The tri-partite agreement between Navy, General Dynamics, and Northrop Grumman stabilized both our DDG–51 and LPD–17 programs, avoided a "second lead ship" challenge for the LPD program, and produced savings sufficient to purchase a third DDG in fiscal year 2004 and fiscal year 2005. We are working with the software industry to open all Navy architectures. These efforts are intended to lead to the development of a truly open architecture that can be shared between all of our current and future combatant ships. Finally, we have imposed a discipline on ourselves that severely limits change during the critical phases of our major shipbuilding programs. This discipline also has been implemented in the JSF program through a configuration steering board. By controlling the scope and timing of change, we hope to implement necessary changes in our programs in a planned fashion where we know what it will cost and how we will install it in the most economical manner.

Through these transformational business initiatives and others, our Department will emerge with an optimal force structure; a healthy industrial base and an efficient and appropriately sized infrastructure.

V. THE WAY AHEAD: POSITIONING TODAY'S NAVY AND MARINE CORPS FOR TOMORROW'S CHALLENGES

Although the global war on terrorism is closer to the beginning than the end, our Navy and Marine Corps, as members our Nation's joint battle force, have disrupted terrorist networks and freed the people of Afghanistan. Our Nation can take pride that, in 2002, the Navy-Marine Corps Team continued its record of combat excellence, improved operational readiness, and retained our magnificent people at historic rates.

Much has been accomplished, but much remains to be done. The Department's fiscal year 2004 budget request positions today's Navy and Marine Corps to support tomorrow's joint warfighting environment by sustaining hard-fought advances in personnel and operational readiness, investing in critical shipbuilding and aircraft programs, fueling transformational capabilities, and building a global, agile, and fully networked force. As our Navy and Marine Corps Team confronts a future with challenges already visible on the horizon, we thank you for your terrific support of our Naval Forces, and urge your continued support for the course upon which we have embarked to fight and win our Nation's wars while preparing to meet the demands of an uncertain tomorrow.

Chairman WARNER. Thank you, Mr. Secretary. For the Department of the Air Force, Secretary Roche.

STATEMENT OF HON. JAMES G. ROCHE, SECRETARY OF THE AIR FORCE

Secretary ROCHE. Thank you, Mr. Chairman, Senator Levin, members of the committee. It is my great honor to join my fellow Service Secretaries today and to represent some hundred thousand active, Guard, Reserve, and civilian airmen who are engaged in defending our Nation and serving our interests around the globe. I am very proud of their achievements this year, from combat operation to homeland defense, to their daily efforts that guarantee the readiness, health, security, and morale of our forces.

It has also been my distinct pleasure to serve for another year with a wonderful general officer named John Jumper. I enjoyed working with him; I enjoyed his background. We note in our travels around the Air Force, we have been impressed and humbled by the creativity, commitment, and professionalism of our airmen.

Mr. Chairman, Senator Levin, if the President decides that we should go into conflict, I want you to know we are ready. We have looked at all of the aspects. As some of you know, I carry each day the current list of preferred precision munitions and where we are in production. We review all that will be asked of us. We are ready; we want you to know this.

As we prepare for the future, we fully support the Department's continuing efforts to balance near-term readiness and operational requirements with long-term transformation of the Armed Forces. Our challenge is to fight the global war on terrorism while simultaneously transforming. We must do both. Although we face near-term budget pressures, we nevertheless must invest in the future. Otherwise, we may be forced to pay more later in dollars and perhaps even lives.

A year of challenging operations, readiness improvements, and investments in our people provide us with many good news stories. In defense of the homeland, we flew over 25,000 Operation Noble Eagle fighter, tanker, and airborne warning sorties, made possible

only through the mobilization of over 30,000 airmen from the Air Force Reserves and Air National Guard. They have conducted over 75 percent of all Operation Noble Eagle missions.

In Operation Enduring Freedom, we flew more than 40,000 sorties in 2002, over 70 percent of all coalition sorties. We did over 8,000 refueling missions, 55 percent of which were for Navy and Marine Corps aircraft, which really made this a joint operation in a distant landlocked nation that we never thought possible that we would have to fight a long time ago.

In Afghanistan, our special operation teams developed new ways to bring air and space power to bear in a variety of engagements. Notably, our combat controllers integrated new technologies and precision weapons into close air support from 39,000 feet using the B–2 bomber; and Curtis Lemay probably is turning in his grave. We are now developing better processes to target and engage time-critical and moving targets, and the same combat controllers are working on the next generation of systems.

We have sustained a forward presence around the globe protecting our Nation's interests and assuring our allies. We now have over 35,000 deployed airmen serving in some 50 expeditionary bases in over 35 countries plus over 50,000 airmen permanently assigned overseas, not including Hawaii and Alaska.

In space, we continued the operation of a variety of satellite constellations that provided essential capabilities to warfighters and civil consumers. Last year, we launched 18 missions with a 100 percent success rate, including the first space launch using an expendable launch vehicle. But we are now facing some interesting challenges. For instance, we now note with undeniable reality that other nations are investing in American advanced military technologies, and fielding the best our aerospace industry has to offer in their air forces. This is unique in our history.

While investment of our good friends and allies is a great value for our alliance's industrial base, superior capabilities are now sure to be present in American-produced airplanes that do not fly the American flag. While other nations are modernizing, we continue to employ aging systems that are becoming more difficult to operate and more expensive to maintain. The average age of the operational Air Force fleet is 22 years old this day. Even with our planned aircraft procurements, the total average age is expected to increase to 27 years by the year 2020.

While our 2004 budget addresses a number of these challenges and supports the Department's priorities, it accelerates our modernization of joint capabilities, and maintains the gains of readiness and people programming achieved last year. Most important it gets money into our procurement programs and funds essential capabilities our warfighters need. I strongly request that you support stability in all of these programs.

Mr. Chairman, we are also working with Secretary Rumsfeld and our colleagues to assess, advocate, and implement a range of sensible management practices that we believe will help minimize bureaucratic obstacles in the path that affect the future administration of the Department. In particular, we are looking at measures to transform our personnel, acquisition, administrative, and range management practices and we have asked for your help.

In order to be brief, Mr. Chairman, let me conclude there and thank you and your colleagues for investments you have made in our future and for the trust you have placed in our concerted effort to provide America with air and space dominance.

[The prepared statement of Secretary Roche follows:]

PREPARED STATEMENT BY HON. JAMES G. ROCHE

Mr. Chairman and members of the committee, the Air Force has an unlimited horizon for air and space capabilities. Our Service was borne of innovation, and we remain focused on identifying and developing the concepts of operations, advanced technologies, and integrated operations required to provide the joint force with unprecedented capabilities and to remain the world's dominant air and space force.

The Wright brothers' historic flight in 1903 ushered in the dawn of a dramatic era of scientific, cultural, and technological advances. As the Air Force celebrates this centennial of powered flight, we do so with the recognition that, despite the daunting challenges of a more dynamic security environment, the next hundred years will witness equally fantastic achievements. The 2003 Air Force Posture Statement reflects this optimism. In this report, we relate some of our accomplishments of 2002 as well as our vision of an innovative and adaptive force capable of guaranteeing American air and space dominance for the decades to come. Our successes are America's successes; they are the direct result of the selfless and unconditional service by men and women of the Total Air Force and their families.

During the past year, and in the midst of combat and a variety of contingency operations, we evaluated, implemented, and validated a host of technological advances, organizational changes, and concepts of operation. These enabled us to deliver desired effects faster and with greater precision than at any time in the history of warfare. Such adaptation is characteristic of our Service, as airmen continually strive to push innovation ever forward en route to unprecedented air and space capabilities for combatant commanders, the joint force, and our Nation. In the year ahead, we will move our expeditionary Air Force closer to realizing the transformational imperatives of this new era, machine-to-machine digital integration of manned, unmanned, and space assets, and joint command and control. Our concepts of operation leverage this integration, and expand our asymmetric advantages in air and space—advantages that are fundamental to defending America's interests, assuring our allies and coalition partners, and winning the Nation's wars.

We recognize the responsibility for America's security is not one we shoulder alone. We work tirelessly toward developing and training professional airmen, transitioning new technologies into warfighting, and integrating the capabilities of our sister Services, other government agencies, and those of our friends abroad to act in the most efficient and effective manner across all operations—from humanitarian to combat missions. At the same time, we pay special attention to the consolidating aerospace industry, our acquisition processes, and our critical modernization challenges, to ensure we will be able to draw upon our core competencies for decades to come.

Blessed with full endorsement from the American people, Congress, and the President, we will remain the world's dominant Air Force. We are honored to serve with America's airmen, and we sincerely appreciate the confidence in our commitment and capability to provide our great Nation with superiority in air and space.

INTRODUCTION

As America approaches the 100th anniversary of powered flight, the Air Force realizes that the Nation is only in the adolescence of air and space capabilities. Yet we envision a future that will manifest dramatic advances in propulsion, operational employment, weapon systems, information technology, education, and training for our air and space forces. It is a future of unprecedented, seamless integration of air and space capabilities with joint command and control at the operational level of war, and machine-to-machine integration at the tactical level. We are pursuing these changes—some elementary, others revolutionary—which will dramatically escalate the capabilities available to the joint forces of the United States; perpetuate American air and space dominance; and redefine the nature of warfare.

If there was any ambiguity about the nature of the security environment in this new century, the attacks of September 11, 2001, crystallized the setting. Just as the turmoil of the previous decade eluded prediction, the dynamic setting of the decades ahead poses even greater predictive challenges as centers of power and sources of conflict migrate from traditional origins. No longer will it suffice to prepare for real and perceived threats from nation-states. Instead, we must apply the sum of our

operational experiences and experimentation to develop dynamic, flexible, and adaptable forces, capable of dissuading, deterring, and defeating a much wider range of potential adversaries, while still assuring her friends and allies.

This fluid setting underscores the need for doctrinal agility, and expeditious and responsive acquisition, planning, and execution across the spectrum of capabilities in support of homeland security—from the most difficult anti-access scenario to humanitarian relief. As new generations of technology proliferate among potential adversaries, we also are reminded of the need to keep pushing technology forward. In less than 100 years, we elevated from a Kitty Hawk biplane flying 100 feet on a 12-second flight, to a host of sophisticated, stealthy aerial vehicles capable of reaching any place in the world, and an array of satellites that circle the globe continuously. We do not rest on these achievements, but instead engage a new generation of innovation. Therefore, our mission is to make calculated research, development, and procurement decisions with the resolve to integrate all of our combat, information, and support systems into an enterprise architecture that contributes joint air and space capabilities to help win the Nation's wars.

Meeting these requirements also warrants our continued transformation into an expeditionary force with the culture, composition, and capabilities to fulfill our evolving operational tasks. As the scope of global contingencies requiring American involvement has multiplied, we have witnessed the substantial value of agility, rapid response, and integration. Thus, we are becoming ever more responsive in time, technology, and training, and in the process, we are elevating Air Force contributions to joint capabilities, while developing our airmen as joint warfighters.

A year ago, Secretary Rumsfeld laid out a number of key priorities for the DOD. All of these—from pursuing the global war on terrorism and strengthening joint warfighting capabilities, to streamlining the DOD processes and improving interagency integration—demand across-the-board changes in the way the Defense Department operates. The Air Force has taken advantage of this opportunity to evaluate and strengthen our capabilities, and to fundamentally drive our investment strategy.

As we contemplate more than a decade of unprecedented success using air and space power, we recognize that we never fight alone. The emerging interdependence of joint, coalition, and alliance partnerships throughout a decade of contingency warfare has been a profound lesson learned. Through cooperative planning, we will realize the full potential of our Service—bringing to bear fully integrated air and space capabilities.

It is our imperative to approach this planning and integration with innovation and vision, fundamentally focused on capabilities. All of the Armed Forces are focusing on meeting the Quadrennial Defense Review's "1–4–2–1" force-shaping construct, by defining the fundamental capabilities required to meet the challenges of a changing world. These are: to defend the United States through homeland security; to deter aggression and coercion in the four critical regions of Europe, Northeast Asia, Southwest Asia, and the Asian littorals; to swiftly defeat aggression in overlapping major conflicts while being capable of decisive victory in one of those conflicts; and to conduct a number of smaller scale contingencies. A revitalized, capabilities-focused approach to operational military requirements will allow us to meet these missions.

Our focus on capabilities for an uncertain future has inspired us to adapt anew the way we organize, train, and equip our forces. We have begun by developing Task Force Concepts of Operation (TF CONOPS), which will define how we will fight and integrate our air and space capabilities with joint, coalition, and alliance forces. The requirements that emerge from these operational concepts will guide a reformed acquisition process that will include more active, continuous partnerships among requirement, development, operational, test, and industry communities working side-by-side at the program level.

This process can only be successful with the help of a vibrant defense industry. Yet today the aerospace industry is consolidating to a point that threatens to diminish the advantages of competition. This, in turn, can lead to loss of innovation, diminished technical skill base, lower cost efficiencies, and other challenges. We must foster increased competition to ensure the long-term health of an industrial sector critical to our national security. While the Air Force will continue to advance the vision and associated capabilities for air and space, we also must challenge industry in order for it to stay on the cutting edge of technology and efficient management practices.

Finally, transforming our force will not be possible without a process to educate, train, and offer experience to the right mix of active duty, Air National Guard, Air Force Reserve, and civilian airmen who understand the nature of our changing security environment. To achieve this, we will evolve what we have traditionally called

the "personnel" function in new ways so as to blend professional military education, advanced academic degrees, and assignment policies under the auspices of "Force Development."

This is the United States Air Force in 2003—inherently innovative, tirelessly dedicated, and comprised of the very best airmen and capabilities in the world to ensure American security and defend her interests. This is what our Nation expects, and we will continually meet that expectation.

WHAT WE DO

The United States Armed Forces exist to fight and win our Nation's wars, which no Service can accomplish alone. The Air Force's pivotal role is to deliver fully capable and integrated air and space power to the Joint Force Commander (JFC). By dominating the media of elevation, the Air Force offers unique warfighting capabilities that leverage the strengths of surface forces and expand the range of potential effects.

Air and space are realms with unlimited horizons for discovery and development. While the Air Force has made tremendous strides in realizing the visions of early airmen and exploiting the operational potential in each medium, we know there is an array of capabilities as yet undiscovered. As the Air Force strives to realize these possibilities, we deliver a multitude of air and space achievements for joint warfighting.

Although relatively short, Air Force history reveals fundamental competencies that are core to developing and delivering air and space power—those unique institutional qualities that set the Air Force apart from the other Services and any other military force in the world. By identifying and keeping these competencies foremost in our vision, we are able to more effectively advance the unique capabilities, as well as the ultimate effects, the Air Force provides to the joint force and the Nation.

The Air Force continually develops areas of expertise that make us the preeminent air and space force in the world. Previously, we distilled these into six distinctive capabilities which we referred to as our "core competencies"—Air and Space Superiority, Global Attack, Rapid Global Mobility, Precision Engagement, Information Superiority, and Agile Combat Support. However, just as our concepts of operations and capabilities continuously evolve, so also does the way in which we articulate Air Force competencies. With deeper refinement, we learned there are more fundamental elements to what we are as an Air Force and how we develop our capabilities for joint warfighting. These are our underlying institutional air and space core competencies—those that, in fact, make the six distinctive capabilities possible: Developing Airmen, Technology-to-Warfighting, and Integrating Operations. These three air and space core competencies form the basis through which we organize, train, and equip and from which we derive our strengths as a Service.

(1) *Developing Airmen:* The heart of combat capability

The ultimate source of air and space combat capability resides in the men and women of the Air Force. The value of technology, organization, and strategy are diminished without professional airmen to leverage their value. Our total force of active, Guard, Reserve, and civilian personnel are our largest investment and most critical asset. They are airmen: steeped in our expeditionary Service ethos. Therefore, from the moment they step into the Air Force through to their last day in service, we are dedicated to ensuring they receive the precise education, training, and professional development necessary to provide a quality edge second to none. The full spectrum capabilities of our Air Force stem from the collective abilities of our personnel, and the abilities of our people stem from career-long development of professional airmen.

(2) *Technology-to-warfighting:* The tools of combat capability

The vision of airmen in employing air and space power fundamentally altered how we address conflict. As the leader in military application of air and space technology, the Air Force is committed to innovation and possesses a vision to guide research, development, and fielding of unsurpassed capabilities. Just as the advent of aircraft revolutionized joint warfighting, recent advances in low observable technologies, space-based systems, manipulation of information, precision, and small, smart weapons offer no less dramatic advantages for combatant commanders. The Air Force nurtures and promotes its ability to translate vision into operational capability in order to produce desired effects. Our innovative operational concepts illuminate the capabilities we need, allowing us to develop unsurpassed capabilities to prevail in conflict and avert technological surprise.

The F/A–22 is demonstrative of this ability to adapt technology to warfighting capabilities. Originally envisioned as an air superiority fighter, it has been trans-

formed into a multi-role system. The F/A–22 not only brings to bear warfighting capabilities without equal for decades to come, but also includes those we did not foresee at its inception. Collectively, the platform's supercruise, stealth, maneuverability, and novel avionics will deliver the ability to create crucial battlefield effects to the hands of the warfighter, and allow access to revolutionary concepts of operation.

(3) *Integrating Operations:* Maximizing combat capabilities

Effectively integrating the diverse capabilities found in all four Services remains pivotal to successful joint warfighting. The Air Force contributes to this enduring objective as each element of air and space power brings unique and essential capabilities to the joint force. Our inherent ability to envision, experiment, and ultimately execute the union of a myriad of platforms and people into a greater, synergistic whole is the key to maximizing these capabilities. In so doing, we are able to focus acquisition and force planning on systems that enable specific, effects-based capabilities, rather than on individual platforms.

Embedded in our exploration of innovative operational concepts is the efficient integration of all military systems—air, land, maritime, space, and information—to ensure maximum flexibility in the joint delivery of desired effects across the spectrum of conflict, from war to operations short of war. However, effective integration involves more than smart technology investment—it also requires investigation of efficient joint and Service organization and innovative operational thinking. Thus, investments in our people to foster intellectual flexibility and critical analysis are equally as important as our technology investments.

Collectively, our air and space core competencies reflect the visions of the earliest airmen and serve to realize the potential of air and space forces. We foster ingenuity and adventure in the development of the world's most professional airmen. We seek to translate new technologies into practical systems while we encourage intellectual innovation at every level of war. We drive relentlessly toward integration in order to realize the potential and maturation of air and space capabilities.

Our proficiency in the three institutional air and space core competencies underpins our ability to deliver the Air Force's six distinctive capabilities in joint warfighting. In turn, our capabilities enable desired effects across the spectrum of joint operations through our task forces drawn from our air and space expeditionary forces. The results of this relationship between core competencies, distinctive capabilities, and operational effects are manifest in the array of successful missions the Air Force accomplished in the past year and those we continue to execute.

Expeditionary Construct

Our core competencies reflect a legacy of innovation and adaptation to accomplish our mission. This point is underscored by the fact that, in spite of over a 30-percent reduction in manpower in the past 12 years, we have faced an exponential increase in worldwide taskings. Intensifying operations tempo (OPSTEMPO) requires significant changes in the way our force trains, organizes, and deploys to support JFC requirements. We are a truly expeditionary force—the nature of our "business" is deployed operations.

The Air Force meets JFC requirements by presenting forces and capabilities through our Air and Space Expeditionary Force (AEF) construct. This divides our combat forces into 10 equivalent AEFs, each possessing air and space warfighting and associated mobility and support capabilities. A key element of our ability to deliver these tailored and ready expeditionary forces is our development of Task Force Concepts of Operation. Our TF CONOPS describe how we fight and how we integrate with our sister Services and outside agencies. They are the fundamental blueprints for how we go to war. Combined with our AEF construct—the principle tool we use to present expeditionary wings, groups, and squadrons—TF CONOPS will guide our decisions in operational planning, enable us to provide scaleable, quick-reacting, tasked-organized units from the 10 standing AEFs, and sustain our ability to ensure trained and ready forces are available to satisfy operational plans and contingency requirements.

The AEF construct incorporates a 15-month cycle during which two AEFs are designated as lead for a 90-day "eligibility" period. During this period, the two are either deployed or on alert for daily, worldwide expeditionary taskings, for which they are tailored and presented to the JFC as expeditionary squadrons, groups, and wings (depending on the specific requirement). Meanwhile, the remaining eight AEFs are in various stages of reconstituting, training, or preparatory spin-up for their lead period over the course of 12 months. It is during this preparatory time (approximately 2 months) that we integrate the training-to-task of AEF squadrons immediately prior to their on-call window.

Yet, it is important to note that while our combat forces cycle through deployment vulnerability periods, they sustain wartime readiness throughout the 15-month

training and preparation cycle—a critical driver of our 90-day eligibility window. Our AEF cycle thus precludes the need for "tiered" readiness by allowing our combat forces to remain current and capable for any contingency or operational plan.

While ensuring necessary capabilities for the JFC, AEF cycles allow us to provide our airmen with a more stable and predictable environment in which to train, refit, and equip. In addition, AEF scheduling makes it easier and more practicable for the Air Reserve Component (ARC) forces—Air Force Reserve Command (AFRC) and Air National Guard (ANG)—to bring their essential contributions to bear by allowing them to plan definitive absences from their civilian employment. This is a critical advantage of the AEF construct, as ARC forces comprise nearly half of the forces assigned to AEFs and contribute the majority of forces for some mission areas.

Operations in 2002

Confident in our air and space capabilities, and committed to meeting any mission tasked, the Air Force completed an unprecedented array of operations and exercises in 2002. From the mountain ranges in Afghanistan and the jungles of the Philippines to the deserts of the Middle East, and across every continent and body of water, the Air Force joined with land and Naval Forces to secure America's national objectives. With each mission, the joint force grows more capable as it applies vision, experimentation, and integration to every undertaking. We do not act as individual Services, but in concert as joint warfighters, as we prevail in the war on terrorism and in all undertakings.

Assuring our Nation's citizens, the Air Force conducts a range of alert postures involving more than 200 military aircraft at over 20 airbases for Operation Noble Eagle (ONE). In conjunction with unprecedented NATO airborne warning support and other U.S. Services' assets, we have provided continuous combat air patrols over sensitive/high risk areas, and random patrols over other metropolitan areas and key infrastructure. Last year, we flew over 25,000 ONE fighter, tanker, airlift, and airborne warning sorties, made possible only through the mobilization of over 30,000 Reserve component airmen. In fact, the ANG and AFRC have effected over 75 percent of the total ONE missions. We will continue this critical mission, as we execute our most fundamental responsibility—homeland defense.

Throughout Operation Enduring Freedom (OEF), the USAF has maintained a continuous, steady-force presence in Afghanistan and the rest of the area of responsibility of more than 14,000 airmen. Air Force assets provide crucial intelligence and situation awareness, combat power and support capabilities for the combatant commander. A key reason for American military success in the region is the performance of Air Force special operations airmen. Working in teams with other special forces, ground units, and coalition elements, airmen special operators heroically bring to bear the full weight of air and space capabilities—from the ground. They introduce our adversaries to the full lethality of our airmen, fully integrated on the ground, in the air, and from space.

Fully engaged in all aspects of the war on terrorism, from mobility to close air support, our aircraft and crews flew more than 40,000 OEF sorties in 2002—over 70 percent of all coalition sorties. Over 8,000 refueling missions marked the linchpin capability for the joint fight—the tanker force—while the magnificent achievements of airlift assets rounded out overwhelming mobility efforts. Simply put, Air Force mobility forces made operations in a distant, land-locked nation possible.

Beyond air operations, we operated and maintained several constellations of earth-orbiting satellites, and in 2002 we launched 18 missions with a 100-percent success rate—including the first space launches using Evolved Expendable Launch Vehicles. These activities bolstered America's assured access to space and ensured vigorous, global ISR, missile warning, precision navigation and timing, communications, and weather systems. In addition, manned, unmanned, and space intelligence, surveillance and reconnaissance (ISR) assets, not only delivered unprecedented battlefield awareness, but with the Predator UAV, also introduced transformational combat capabilities.

ONE and OEF levied particularly heavy demands on our security forces. In CONUS and forward locations, increased alert postures warranted significant increases in security personnel who constitute a critical element of our force protection capabilities. These demands have raised our force protection posture worldwide and have forced us to adjust to a new "steady state" condition. Security forces bear the brunt of the adjustment effort despite a resultant baseline shortfall of approximately 8,000 personnel to meet the alert postures. In the near term, we involuntarily extended for a second year nearly 9,500 ARC security forces. However, in order to relieve these ARC forces, we concluded a 2-year agreement with the Army for short-term support, and initiated several ongoing efforts to combine technology, new

processes, and some manpower shifts to achieve a long-term adjustment to this new era.

As we adjust, we continue to deliver force protection through the integrated application of counter and antiterrorism operations, and preparedness for chemical, biological, radiological, nuclear, and explosive (CBRNE) incidents. We employ a tailored selection and application of multi-layered active and passive, offensive and defensive measures. Intelligence and counterintelligence programs support this integrated effort and remain critical to our success. In this regard, we continued to develop and employ all-source intelligence systems; cross-functional intelligence analysis procedures; and an operational planning process to implement force protection operations that deter, detect, deny, and destroy threats. Our goal is to see first, understand first, and act first.

Though engaged in these security enhancements and the GWOT, our combat operations were not limited to OEF in 2002. Iraqi forces fired on coalition aircraft over 400 times during 14,000 sorties supporting Operations Northern Watch (ONW) and Southern Watch (OSW). The Air Force maintained a continuous, regional presence of more than 9,000 airmen, while air and space assets provided vital intelligence, situation awareness, and indications and warning to monitor Iraq's compliance with United Nations' directives.

Whether on the ground or in the skies, our airmen also conducted a host of other missions above-and-beyond standing security requirements around the globe. Even though the war on terrorism is our national military focus, airmen joined soldiers, sailors, and marines in the Balkans, South America, Europe, Asia, and around the world to assure our friends and allies, while deterring and dissuading our adversaries.

Worldwide humanitarian and non-combat evacuation operations missions remain other key tasks for Air Force personnel. In 2002, for example, airlift crews exceeded 2.4 million airdropped daily ration deliveries in Afghanistan, evacuated allied personnel at threatened locations around the world, and flew typhoon relief missions to Guam, while our explosive ordnance specialists removed unexploded munitions in Africa. Yet, while conducting unprecedented food, medical, and civil engineering and evacuation relief efforts in warring regions, we were also on call to perform critical, quick-response missions during natural or man-made crises at home. Through explosive ordnance disposal, fire fighting, law enforcement support, and rapid medical response expertise, we conducted daily operations in support of local, State, and Federal agencies. During the wildfire season, ANG and AFRC C–130s equipped with modular airborne fire fighting systems flew nearly 200 sorties while assisting U.S. Forest Service firefighting efforts in numerous States. In addition, when Hurricane Lili endangered Louisiana, Air Force aeromedical and critical care forces rolled in with C–9 aircraft to transport and safeguard 40 patients from threatened hospitals.

Training Transformation

Training is a uniquely American military strength. As potential adversaries work to overcome our technological superiority, it is imperative we enhance this strength through improved proficiency at the tactical level and integration at the joint level. Training is integral to our core competencies and the critical enabler for military capabilities, so we are engaged with the other Services, unified commands, and OSD in developing and implementing a training transformation plan. Our objective is to train as we will fight and increase the joint context of our exercises through live, virtual, distributed, and constructive environments. It is the realism of this training that gives us the edge in combat. This involves not only modernizing the integration of space and information operations on our ranges, but also planning for their sustainment to meet future test and training missions while implementing environmentally sound use and management to ensure long-term availability. Additionally, to expand range support for current and emerging missions, we are embarking on a new effort to identify and procure environmental, airspace, and spectrum resources at home and abroad.

Joint Chiefs of Staff (JCS) Exercises, Interoperability Training, and Experimentation

We advanced joint and combined interoperability skills with our sister Services and those of 104 nations throughout 111 JCS exercises and Joint Task Force (JTF) experimentation, conducted in 40 foreign countries. Exercises ranged from large field training such as Bright Star, to command post exercises like Positive Response, to smaller, but equally valuable humanitarian exercises, as in the school construction, well drilling, and medical clinic visits of New Horizons-Jamaica. These activities provided realistic training and enhanced the effectiveness of all participating nations' forces.

Task Force Enduring Look

Success in future operations hinges upon our ability to learn from previous operations and exercises. To ensure we learn from ongoing operations and adapt accordingly, we established Task Force Enduring Look (TFEL). TFEL is responsible for Air Force-wide data collection, exploitation, documentation, and reporting for our efforts in ONE/OEF. The objective for TFEL is clear—provide superior support to the warfighter, and properly recognize and apply lessons learned during rather than only at the conclusion of these operations.

Through extensive investigation and analysis, TFEL examines joint warfighting effectiveness, determines implications, and shapes future Air Force transformation of expeditionary air and space power. The task force documents lessons learned in a variety of products that cover every conceivable subject matter. As derivative campaigns unfold, TFEL will broaden its assessments in follow-on reports. Applying the lessons in these reports and adapting from our past experiences will help ensure we prevail in future operations.

We are able to accomplish the full spectrum of air and space missions, and improve our capabilities through lessons learned, by focusing on the best way to organize, train, and equip. Creativity, ingenuity, and innovation are the hallmarks of all that we do, all of which begins with our people.

WHO WE ARE

> *"No arsenal and no weapon in the arsenals of the world is so formidable as the will and moral courage of free men and women. It is a weapon our adversaries in today's world do not have. It is a weapon that we as Americans do have.* President Ronald Reagan, 20 January 1981

America is blessed with vast resources, and chief among these is her people. In the same way, the Air Force relies on the officers, enlisted, civilians, and contractors that comprise our total force—active, Guard, and Reserve—for cultural strength and unbridled skill. Air Force strength will never reside in systems alone, but in the airmen operating them. Nor will our capabilities improve solely through technology, but instead through the adaptive insight of our creative and selfless professionals.

Therefore, we recruit and retain a remarkably diverse group to ensure we reach the fullest potential of air and space forces. Their backgrounds reflect the cross-section of American culture—all races, religions, economic and educational backgrounds, skill and management levels, men and women—and make this Air Force the tremendous organization it is today. Just as diverse individual citizens find unity in the term American, our personnel embrace an identity and fundamental perspective as Airmen.

The underlying qualities found in all airmen emanate from our core values—integrity first, service before self, and excellence in all that we do. Embedded in these core values are the inherent characteristics of our confident, capable airmen—courage, tenacity, professionalism, vision, pride, and, when faced with seemingly insurmountable obstacles, heroism. Indeed, today's airmen carry on the traditions and visions of the earliest generation of airmen while preparing for the challenges of the future.

The diversity of our airmen energizes the advancement of America's air and space power. Airmen embrace transformational ideas and seek to apply them to every aspect of the Air Force, from organizational constructs to concepts of operation and employment. They are able stewards of the Nation's space programs, advancing ideas and technologies for national security, as well as for the environmental and economic benefit of our Nation and the world. Yet, ultimately our standout advantage is our warrior airmen themselves, who demonstrate skills and dedication in combat unsurpassed by any in history. Whether maintaining safe skies across the United Nations' sanctioned no-fly zone in Iraq, hunting down terrorists in the jungles of the Philippines, or paying the ultimate price while rescuing fellow Americans in a battle on an Afghan ridge, our airmen are proven combat veterans. Their selflessness resonates the very best of our Service.

Airmen are expeditionary—our natural state of operations is not "home station," but rather, deployed. After two successful cycles, our AEF construct has been validated as an effective means of meeting our Nation's expeditionary requirements. Yet we continue to enhance the construct, by initiating significant organizational change to ensure nearly every airman belongs to one of the 10 AEFs. The effect has been a change to our airmen's mindset and culture, where an individual's AEF association cultivates an expeditionary perspective and a clearer appreciation for joint warfighting requirements and capabilities.

Force Development—A New Leadership Development Paradigm

In the past, we addressed aspects of career development, education, and assignments individually, but not necessarily in a coordinated, connected approach. Recognizing this, and to prepare for the future more ably, we introduced a systemic, deliberate force development construct that evolves professional airmen into joint force warriors. This construct coordinates doctrine and policies, concentrated to provide the right level, timing, and focus of education, training, and experience for all airmen, while encompassing personal, team, and institutional leadership skills across tactical, operational, and strategic levels.

In the 21st century, we need air and space warriors with mastery of their primary skills and others who possess competency beyond their own specialty. However, this diversity must be deliberate to ensure the correct skills are paired according to institutional requirements. Force development encourages many to obtain a deep perspective in their functional area, but at the same time offers the broader perspective we need to complement our leadership team. We begin this transformation with the active officer corps and will eventually encompass the civilian, enlisted, and Reserve components to better meet the expanding challenges of tomorrow.

Education and Technical Training—Emphasis on Joint Leadership/Warfare

As opportunities resident in advancing technologies unfold, it is imperative that the Air Force be able to draw upon a vibrant collection of educated, technically skilled, and technologically savvy airmen—both uniformed and civilian alike. We are answering this fundamental need in fiscal year 2003 with aggressive and innovative initiatives to enhance the abilities and breadth of our force. Agile, flexible training is an essential investment in human capital, and our initiatives will ensure our investment delivers the right training to the right people at the right time.

In August 2002, we began our groundbreaking Enlisted-to-Air Force Institute of Technology (AFIT) Program. An initial cadre of senior NCOs began receiving world-class, graduate education to optimize them for greater responsibilities and challenging follow-on assignments. We will also provide a major influx of officers into AFIT, Naval Postgraduate School (NPS), and civilian institutions. In addition, because more than 42 percent of our civilian force will be eligible for retirement in the next 5 years, we are committing significant resources to pay for advanced education as well as cross-functional career broadening.

Future military missions and contingencies will require greater sophistication and understanding of the security environment, and our expeditionary force requires airmen with international insight, foreign language proficiency, and cultural understanding. We are working diligently to expand the cadre of professionals with such skill sets and experiences. Our education initiatives will contribute to a major corporate culture shift that fosters appropriate development throughout our airmen's careers to meet evolving force requirements.

Diversity

Foremost among our efforts to enhance the capabilities of our airmen is a passionate drive for diversity. Diversity is a warfighting issue; it is a readiness issue. We must attract people from all segments of American society and tap into the limitless talents and advantages resident in our diverse population if we hope to reach our fullest potential as a fighting force. Nurturing rich representation from all demographics opens the door to creativity and ingenuity, offering an unparalleled competitive edge for air and space development. Today's multi-threat world also mandates that we invigorate in our airmen the ability to effectively think across cultural boundaries and functional paradigms (or stovepipes). We will thus recruit, train, and retain airmen without intellectual boundaries, uniquely capable of integrating people, weapons, ideas, and systems to achieve air and space dominance.

Recruiting

It takes tremendous effort to identify and develop such airmen, yet the return for the Nation is immeasurable. Increased advertising, an expanded recruiting force with broader access to secondary school students, and competitive compensation prepare us to meet recruiting goals. Despite the challenge of mustering such a diverse and skilled collection of Americans, we exceeded our fiscal year 2002 enlisted recruiting goals and expect to surpass fiscal year 2003 objectives. We will adapt our goals to meet new force objectives, however the capacity limitations of basic military training and technical training school quotas will continue to challenge total force recruiting efforts.

Officer recruitment presents similar challenges, yet we continue to attract America's best and brightest. However, we are particularly concerned with military and civilian scientists and engineers. We fell short of our accession goal for this group

and have begun all-out recruitment and retention efforts for these critical specialties. For example, in fiscal year 2003 we plan to begin a college sponsorship program to attract scientists and engineers from universities lacking ROTC programs. In addition, we continue to find recruiting health care professionals especially difficult, so we are making adjustments to ensure improvement.

We will also closely monitor ARC recruitment. Historically, the ANG and AFRC access close to 25 percent of eligible, separating active Air Force members (i.e. no break in service). Continued high OPTEMPO may negatively impact our efforts in attracting Air National Guardsmen, as well as drawing separating active airmen to the Air Force Reserve. As a result, recruiting will have to "make up" a substantial portion of accessions from that market by developing alternatives.

Retention

The Air Force is a retention-based force. The critical skill sets we develop in our airmen are not easily replaced, so we expend every effort to retain our people—the impetus for our "re-recruiting" efforts. Overall retention plans include robust compensation packages that reward service, provide for a suitable standard of living, ensure a high quality-of-life, and retain the caliber of professionals we need to decisively win America's wars.

For fiscal year 2002, it was difficult to calculate accurate retention results due to Air Force implementation of Stop Loss. Nonetheless, we continue to reap the benefits of an aggressive retention program, aided by bonuses, targeted pay raises, and quality-of-life improvements. Introducing the Critical Skills Retention Bonus for select officer specialties reinforces our commitment to target specific skills suffering significant retention challenges. However, many airmen retained under Stop Loss will separate throughout fiscal year 2003—a fact of particular concern for our rated force.

Bonuses and special pay programs continue to be effective tools in retaining our members. The ANG has placed particular emphasis on aircraft maintenance fields, security forces, and communication and intelligence specialists, among others, by offering enlistment and reenlistment bonuses, Student Loan Repayment Program, and the Montgomery GI Bill Kicker Program. Another example is the flexible Aviation Continuation Pay (ACP) program—an important part of our multi-faceted plan to retain pilots. In conjunction with our rated recall program, our fiscal year 2002 plan resulted in a substantial increase in committed personnel. We have a similarly designed ACP program in fiscal year 2003, and plan future extensions to include navigators and air battle managers.

Summary

Regardless of AEF deployment or home station missions, our airmen accomplish their duties with firm commitment and resolute action. It's what we do. It's who we are: a practical, technically sound, ingenious force of uniformed and civilian airmen derived from this richly diverse Nation to create the world's premier air and space power.

WHERE WE'RE GOING

The first hundred years of powered flight witnessed tremendous and enduring innovation. We commemorate this centennial during 2003 with the theme, *Born of Dreams, Inspired by Freedom,* which recognizes the remarkable accomplishments of generations of airmen. Today's airmen are equally impassioned to bring dreams to reality as we pursue our vision of tomorrow's Air Force, *Unlimited Horizon.* Through this vision, we build a bridge from today's existing capabilities to those required to win tomorrow's wars.

Ultimately our success will be measured by our ability to provide our forces with assured freedom to attack and freedom from attack. Achieving such victory in tomorrow's battlespace will demand our full integration with fellow Services, allies, and coalition partners—an essential part of the expeditionary construct. Through our security cooperation efforts, we build these foreign defense relationships and allied capabilities to ensure we have the access, interoperability, and international support for our worldwide commitments. Toward this requirement, we are working with our sister Services to develop truly joint concepts of operation that integrate the full spectrum of land, sea, air, space, and information warfighting capabilities. When America places its men and women in uniform into harms way, we owe them preeminent resources, planning, and organization to achieve victory over any adversary.

Capabilities-Based CONOPS

While adapting to the new strategic environment, our principal focus has been transitioning from a platform-based garrison force to a capabilities-based expeditionary force. No longer platform-centric, we are committed to making warfighting effects, and the capabilities we need to achieve them, the driving force behind our ongoing transformation. From this point forward, all of our operational, programming, and budget decisions will be supported by a predefined capability.

Our emerging TF CONOPS will help make this essential shift by providing solutions to a variety of problems warfighters can expect to encounter in the future. Whether detailing our plans for operating in an anti-access environment or identifying how to deliver humanitarian rations to refugees, TF CONOPS lend focus on the essential elements required to accomplish the mission. They cover the complete spectrum of warfighting capabilities (deep strike, information, urban, and psychological operations, etc.) and enable us to tailor forces (expeditionary wings, groups, or squadrons) from existing AEFs to meet JFC's requirements. Responsibility for CONOPS development falls to the Major Commands, with a senior officer on the HQ/USAF Air Staff assigned to each CONOP to serve as their "Champion," facilitating the process.

TF CONOPS directly support Secretary Rumsfeld's efforts to free scarce resources trapped in bureaucracy and push them to the warfighter. They will also be the focal point for a capabilities-based Program Objective Memorandum (POM). In support of this effort, our Capabilities Review and Risk Assessment analyzes and assesses shortfalls, health, risks, and opportunities, while prioritizing required future capabilities. This helps CONOPS developers articulate any disconnects between required capabilities and developing programs, while providing senior Air Force leadership an operational, capabilities-based focus for acquisition program decision-making. TF CONOPS include the following:

- Global Strike Task Force (GSTF) employs joint power-projection capabilities to engage anti-access and high-value targets, gain access to denied battlespace, and maintain battlespace access for all required joint/coalition follow-on operations.
- Global Response Task Force (GRTF) combines intelligence and strike systems to attack fleeting or emergent, high-value or high-risk targets by surgically applying air and space power in a narrow window of opportunity, anywhere on the globe, within hours.
- Homeland Security Task Force (HLSTF) leverages Air Force capabilities with joint and interagency efforts to prevent, protect, and respond to threats against our homeland—whether within or beyond U.S. territories.
- Space and Command, Control, Communications, Computers, Intelligence Surveillance, and Reconnaissance (Space and C^4ISR) Task Force harnesses horizontal integration of manned, unmanned, and space systems to provide persistent situation awareness and executable decision-quality information to the JFC.
- Global Mobility Task Force (GMTF) provides regional combatant commanders with the planning, C^2, and operations capabilities to enable rapid, timely, and effective projection, employment, and sustainment of U.S. power in support of U.S. global interests—precision delivery for operational effects.
- Nuclear Response Task Force (NRTF) provides the deterrent "umbrella" under which conventional forces operate, and, if deterrence fails, it avails a rapid scalable response.

Air and Space Expeditionary CONOPS is the overarching context, which identifies and sequences distinctive capabilities and broad-based functions that air and space power provide the JFC to generate desired effects for national military objectives.

The Air Force is transforming around these Task Force Concepts of Operation. In addition to serving as a roadmap for operators, the TF construct will form the basis for resource allocation, future system acquisitions, and POM submissions in order to find capabilities-based solutions to warfighter problems.

Science and Technology (S&T)—Wellspring of Air and Space Capabilities

Reaching these warfighter solutions rests in large measure with R&D. Through robust investment and deliberate focus in S&T, the Air Force invigorates our core competency of technology-to-warfighting. Combined with innovative vision, S&T opens the direct route towards transforming air and space capabilities. Therefore, we continue long-term, stable investment in S&T to ensure we realize future capabilities, as well as those that may immediately affect existing systems.

We are improving our S&T planning and collaboration with other Services and agencies to ensure we: (1) encourage an operational pull that conveys to the S&T community a clear vision of the capabilities we need for the future; (2) address the full spectrum of future needs in a balanced and well-thought out manner; and (3) enhance our ability to demonstrate and integrate promising technologies. Some of these new technologies—UAV systems, laser-based communications, space-based radar, and others—show clear promise for near-term, joint warfighting applications. Others present opportunities we can only begin to imagine. We are exploring each of these technologies, and our investment will deliver the required capabilities of our CONOPS.

Executive Agent for Space

Embedded in all of our TF CONOPS, and indeed within most military operations, is an extensive reliance on systems resident in space. The Air Force proudly fulfills the role of Department of Defense Executive Agent for Space with confidence and enthusiasm. Our ability to execute this tremendous responsibility stems from a natural outflow of our core competencies and distinctive capabilities. Accordingly, and in conjunction with the other Services and agencies, we are shaping a new and comprehensive approach to national security space management and organization.

Our capstone objective is to realize the enormous potential in the high ground of space, and to employ the full spectrum of space-based capabilities to enable joint warfighting and to protect our national security. The key to achieving this end is wholesale integration: through air, land, space, and sea; across legacy and future systems; among existing and evolving concepts of operation; and between organizations across all sectors of government. We will continue to deliver unity of vision, effort, and execution to fulfill our mission of delivering the most advanced space capabilities for America.

Drawing Effects from Space

Our horizon is truly unlimited, extending beyond the atmospheric environs of airpower to the reaches of outer space. Our proud Air Force tradition of airpower is joined by an equally proud and continually developing tradition of space power.

In the early days of the space age, only those at the strategic level received and exploited the benefits of space capabilities. The current state of affairs, however, is decidedly different. The former distinctions between "black" programs, "white" space, military, civil, and commercial applications are growing increasingly blurred—in some cases, they are virtually seamless. In short, space capabilities now are woven deeply into the fabric of modern society, and they have altered forever the way we fight wars, defend our homeland, and live our lives.

It is in this context, and this understanding of the widespread and increasing importance of space systems, that we strive to meet present and future national security challenges by providing dominant space capabilities that will:

- Exploit Space for Joint Warfighting: Space capabilities are integral to modern warfighting forces, providing critical surveillance and reconnaissance information, especially over areas of high risk or denied access for airborne platforms. They provide weather and other earth-observation data, global communications, precision navigation and guidance to troops on the ground, ships at sea, aircraft in flight, and weapons enroute to targets. All of these capabilities, and more, make possible the tremendous success our joint warfighters achieve during combat operations.

  We will enhance these existing capabilities and, where it makes sense, pursue new ones such as the Transformational Communications System (TCS), which will strive to dramatically increase bandwidth and access for warfighters; and Space Based Radar, which will complement the airborne Joint Surveillance Target and Attack Radar System (JSTARS) while migrating Ground Moving Target Indicators (GMTI) into space. We will also develop methods and technologies to enhance our Nation's ability to conduct rapid and accurate global strike operations anywhere in pursuit of U.S. interests.
- Pursue Assured Access to Space: We cannot effectively exploit space for joint warfighting if we do not have responsive, reliable, and assured access to space. In August 2002, the new Evolved Expendable Launch Vehicle got off to a strong start with the successful launch of Lockheed Martin's Atlas V booster. Boeing's Delta IV program added to the Nation's quiver of modern launch vehicles with liftoff in November. We will also pursue advanced and highly versatile reusable launchers and small expendables with extremely short response times to achieve long-term assured access, while

taking the necessary steps to maintain and improve our space launch infrastructure.

• Preserve our Freedom to Act in Space: We must be able to act freely in space, or risk losing those capabilities essential to joint warfighting. We initiated efforts to increase our space situation awareness, beginning with the new Space Situation Awareness Integration Office at Air Force Space Command, and a similar program at the Space and Missile Systems Center. Future efforts are planned to develop strategy, doctrine, and programs to improve the protection of our own space capabilities while denying the benefits of joint space capabilities to our adversaries.

As it is with all Air Force capabilities, the most important resource for national space capabilities is neither technological nor fiscal—it is human. Our Space Professional Strategy fulfills a Space Commission recommendation to develop space professionals and nurture a cadre to lead our national security space endeavors at all levels in the decades ahead. These space-expert airmen will be the core stewards of space operations, and shoulder the responsibility for aggressively advancing joint warfighting capabilities into the high ground frontier.

Horizontal Integration of Manned, Unmanned, and Space Assets

The essence of transformation is found in leveraging the Nation's technological dominance to create maximum asymmetrical advantage. Airmen seek unrestricted boundaries when looking at war planning from a theater-wide perspective, or talking about national elements of power. Simply stated, it is in the way we think—we must take advantage of it.

Our foremost objective is to develop the capability to conduct rapid and precise operations to achieve desired effects and shape the battlespace for the joint force. This requires interfacing numerous DOD and national assets—the seamless, horizontal integration of manned, unmanned, and space-based systems. An essential element is designing systems that use digital-level, machine-to-machine conversations to expedite data flow and ensure the JFC receives timely, decision-quality information. Such integration will dramatically shorten the find, fix, track, target, engage, and assess (F2T2EA) cycle. In the end, we know that neither JFCs guiding operations, nor special operators putting lead on targets care what source provides data. It is an effect they seek, and what we will provide.

Key to the warfighter's success is Predictive Battlespace Awareness (PBA). PBA requires in-depth study of an adversary well before hostilities begin. Ultimately, we want to be able to anticipate his actions to the maximum extent possible. PBA-derived insights allow us to utilize critical ISR assets for confirmation rather than pure discovery once hostilities begin. We are then able to analyze information to assess current conditions, exploit emerging opportunities, anticipate future actions, and act with a degree of speed and certainty unmatched by our adversaries.

Along this path, we are transitioning from collecting data through a myriad of independent systems (Rivet Joint, AWACS, JSTARS, space-based assets, etc.) to a Multi-sensor Command and Control Constellation (MC^2C) capable of providing the JFC with real-time, enhanced battlespace awareness. Today, this transition is restricted by the necessity to rely on Low Density/High Demand (LD/HD) C^4ISR assets. The limitation inherent in LD/HD platforms, forces us to shift their exploitation capabilities between theaters to cover emerging global threats and events. This sub-optimizes overall battlespace awareness and limits our efforts at predictive analysis. In the interim, responsive space-based ISR assets will help mitigate our over-stressed LD/HD systems. Yet ultimately, we need a synergistic combination of military and commercial assets, advanced data processing capabilities, and assured reachback to achieve true battlespace awareness.

In the future, a single wide-body platform employing tunable antennas and sensors—Multi-sensor Command and Control Aircraft (MC^2A)—will replace many of the C^4ISR functions of many of today's specialized, but independent assets. Air, ground, and space assets will comprise the MC^2C, which will elevate Joint Forces Air Component Commanders' ability to command and control air assets. Additionally, every platform will be a sensor on the integrated network. Regardless of mission function (C^2, ISR, shooters, tankers, etc.), any data collected by a sensor will be passed to all network recipients. This requires networking all air, space, ground, and sea-based ISR systems, command and control (C^2) nodes, and strike platforms, to achieve shared battlespace awareness and a synergy to maximize our ability to achieve the JFC's desired effects.

Uniting joint and coalition information presents the most difficult challenge in providing one common operational picture for key decisionmakers. We are working closely with our sister Services to eliminate the seams between existing systems and

taking the necessary steps to ensure all future acquisitions are planned and funded to meet the interoperability requirements of future joint CONOPS.

A critical element of successful information merging is communications, as bandwidth is finite and requires careful management. Long-range or penetrating systems must communicate beyond the horizon despite adversaries' attempts to exploit or interrupt these links. To counter disruption, all systems must be reliable, secure, and bandwidth-efficient. The PBA construct facilitates this objective by eliminating constrictive, stove-piped communications systems while emphasizing networked operations.

We will realize the vision of horizontal integration in our TF CONOPS. GSTF, for example, will deliver the right-sized mix of assets with appropriate sensors capable of penetrating into enemy airspace. Such sensors may be low observable and/or expendable, mounted on either ISR platforms or imbedded into strike platforms. Sensors may consist of Special Operations Forces, inserted before the commencement of hostilities, who communicate with attack platforms during combat via secure electronic writing tablets, annotating targets and threats on the imagery display with a stylus. As technology progresses, and where it makes sense, a significant portion of ISR functionality will likely migrate to space, affording 24/7 persistence and penetration. Likewise, advanced defensive counterspace capabilities will afford these systems protection from enemy actions.

Combining manned, unmanned, and space-based assets with dynamic C^2 and PBA transforms disparate collection and analysis activities into a coherent process, allowing the warfighter to make timely, confident, and capable combat decisions. This is what the Air Force brings to the joint fight. It is what air and space warriors are all about. We unlock the intellectual potential of airmen who think across the dimensions of mediums and systems capabilities, for the joint warfighter.

Addressing the Recapitalization Challenges

Despite new CONOPS and visions for future capabilities, we cannot rely on intellectual flexibility to eradicate the challenge of old systems and technologies. Though creativity may temporarily reduce the negative impacts of aging systems on our operational options, ultimately there are impassable limits created by air and space system hardware issues.

We have made tremendous strides in modernizing and improving maintenance plans for our aircraft, however the tyranny of age has introduced new problems for old aircraft. Reality dictates that if we completely enhance the avionics and add new engines to 40-year-old tankers and bombers, they are still 40-year-old aircraft, and subject to fleet-threatening problems such as corrosion and structural failure.

This is equally true for our fighter aircraft, where once cutting-edge F–117s average over 15 years old, and mainstay air dominance F–15Cs are approaching 20 years old. With double-digit surface-to-air missile system, next-generation aircraft, and advanced cruise missile threats proliferating, merely maintaining our aging fighter and attack aircraft will be insufficient. In fact, the dramatic advances offered in many of our TF CONOPs cannot be realized without the addition of the unique capabilities incorporated in the F/A–22. Simply stated, our legacy systems cannot ensure air dominance in future engagements—the fundamental element for joint force access and operations. We will thus continue executive oversight of F/A–22 acquisition in order to ensure program success. While keeping our funding promises, we will procure the only system in this decade that puts munitions on targets, and which is unequally capable of detecting and intercepting aircraft and cruise missiles.

Although ultimately solving these recapitalization challenges requires acquisition of new systems, we will continue to find innovative means to keep current systems operationally effective in the near term. We know that just as new problems develop with old systems, so too do new opportunities for employment, such as our employment of B–1s and B–52s in a close air support role during OEF. We will also pursue new options for these long-range strike assets in a standoff attack role for future operations.

Unlike with the aforementioned air-breathing assets, we cannot make service life extensions or other modifications to our orbiting space systems. Satellites must be replaced regularly to account for hardware failures, upgrade their capabilities, and avoid significant coverage gaps. Additionally, we must improve outmoded ground control stations, enhance protective measures, continue to address new space launch avenues, and address bandwidth limitations in order to continue leveraging space capabilities for the joint warfighter. We are exploring alternatives for assuring access to space, and a key aspect of this effort will be invigorating the space industrial base.

Finally, it is imperative that we address the growing deficiencies in our infrastructure. Any improvements we may secure for our air and space systems will be

limited without a commensurate address of essential support systems. Deteriorated roofs, waterlines, electrical networks, and airfields are just some of the infrastructure elements warranting immediate attention. Our ability to generate air and space capabilities preeminently rests with the ingenuity of visionary ideas, yet intellectual versatility must be supported by viable systems and structures to realize our Service potential.

Organizational Adaptations

Commensurate with our drive to enhance air and space capabilities is our identification and development of organizational structures to aid these advances. In 2002, we initiated numerous adaptations to more efficiently and effectively exploit Air Force advantages for the joint warfighter.

Warfighting Integration Deputy Chief of Staff

Comprehensive integration of the Air Force's extensive C^4ISR systems is paramount for our future capabilities. This requires an enterprise approach of total information-cycle activities including people, processes, and technology. To achieve this, we created a new Deputy Chief of Staff for Warfighting Integration (AF/XI), which brings together the operational experience and the technical expertise of diverse elements (C^4ISR, systems integration, modeling and simulation, and enterprise architecture specialties).

This new directorate will close the seams in the F2T2EA kill chain by guiding the integration of manned, unmanned, and space C^4ISR systems. AF/XI's leadership, policy, and resource prioritization will capitalize on the technologies, concepts of operations, and organizational changes necessary to achieve horizontal integration and interoperability.

Success has been immediate. AF/XI worked with the Deputy Chief of Staff for Operations to champion increased Air Operations Center funding in the fiscal year 2004 POM, which accelerated the stabilization and standardization of the weapon system. Subsequently, the base-lined weapon system now has a modernization plan, which is both viable and affordable. AF/XI also led analysis that highlighted imbalances among collection and exploitation capabilities. As a result, we plan to accelerate ground processing and exploitation capabilities within the Future Years Defense Program to close the gap. Major contributions in management of the complex information environment will continue, as AF/XI makes better use of scarce resources, allowing the Air Force to provide the joint warfighter the capabilities to dominate the battlespace.

Chief Information Officer (AF/CIO)

Partnered with AF/XI, the AF/CIO shares responsibility to spearhead the transformation to an information-driven, network-centric Air Force. These two organizations orchestrate the integration within our information enterprise, and establish processes and standards to accelerate funding and ensure priorities match our integrated information vision.

The AF/CIO's specific mission is to promote the most effective and efficient application, acquisition, and management of information technology resources under an enterprise architecture. The goal is to provide the roadmap for innovation and to function as a blueprint for the overall leverage of valuable information technology. Enterprise architecture will use models and processes to capture the complex interrelationships between the Air Force's systems and platforms. A resultant example is basing information technology (IT) investment decisions on sound business cases, approved Air Force standards, and, ultimately, how a particular technology contributes to specific capabilities. Additionally, we are institutionalizing enterprise architecting as a key construct in defining mission information requirements and promoting interoperability.

Currently, the wide variety of IT standards limits C^2 processes and information and decision support to our warfighters. The AF/CIO–AF/XI team is tackling this and all other integration challenges as they develop an enterprise architecture that spans the entire Air Force, while also staying in harmony with other Services' efforts.

Blended Wing

We do nothing in today's Air Force without Guard, Reserve, and civilian personnel working alongside active airmen. A fundamental initiative of Air Force transformation is formalizing this integration under the Future Total Force (FTF). As part of FTF, we are pursuing innovative organizational constructs and personnel policies to meld the components into a single, more homogenous force. FTF integration will create efficiencies, cut costs, ensure stability, retain invaluable human capital, and, above all, increase our combat capabilities.

A key effort is to "blend," where sensible, units from two or more components into a single wing with a single commander. This level of integration is unprecedented in any of the Services, where active, Guard, and Reserve personnel share the same facilities and equipment, and together, execute the same mission. In essence, blending provides two resource pools within a single wing—one, a highly experienced, semi-permanent Reserve component workforce, offering stability and continuity; the other, a force of primarily active personnel able to rotate to other locations as needs dictate.

The first blended wing opportunity arose with the consolidation of the B1–B fleet. The move left behind an experienced but underutilized pool of Guard personnel at Robins AFB, GA. Meanwhile, the collocated 93rd Air Control Wing (ACW) (active E–8 Joint STARS), suffered from high tempo and low retention. Hence, Secretary Roche directed that the two units merge, and on 1 October 2002, the blended wing concept became a reality with the activation of the 116th ACW.

Over the course of calendar year 2002, the 116th ACW tackled many pioneering challenges: from legal questions surrounding the command of combined active-Reserve component units, to programmatic issues with funding the program from two separate accounts, to integrating different personnel systems used by each component. Airmen from both components are working through these issues successfully, making the 116th an example for future FTF blending. Yet, some additional Title 10 and Title 32 provisions still need to be changed to make the FTF a reality. Meanwhile, parallel efforts, such as placing Reserve pilots and maintenance personnel directly into active duty flying organizations under the Fighter Associate Program, add to this leveraging of highly experienced reservists to promote a more stable, experienced workforce.

As organizational constructs, blending and associate programs lay an important foundation for a capabilities-based, expeditionary air and space force, which are inherently flexible and ideal to meet rotational AEF requirements. In a resource-constrained environment, blending promotes efficiencies and synergies by leveraging each component's comparative strengths, freeing funds for modernization while sustaining combat effectiveness, and effecting warfighting capabilities greater than the sum of its parts.

Combat Wing

The comprehensive evaluations in our ongoing transformation include examining our wing structure. Given all of the lessons gleaned from expeditionary operations over the past decades, we asked, "Could we derive advantages in revised wing organization for both force development and combat capability?" The answer was "Yes," and we enacted changes to create the Combat Wing Organization (CWO).

The central aspect of the CWO is the new Mission Support Group. This will merge former support and logistics readiness groups, contracting, and aerial port squadrons, as applicable. Within this group, we will hone expeditionary skills from crisis action planning, personnel readiness, and working with the joint system for load planning and deployment, to communications, contingency bed down, and force protection. Currently, all of these aspects exist in skill sets that none of our officers have in total. But the new expeditionary support discipline will address this, and provide our officers the expertise in all aspects of commanding a forward base system. With this reorganization, each wing will now have one individual responsible for the full range of deployment and employment tasks—the Mission Support Group Commander.

The restructuring will retain the Operations Group; however, group commanders will become more active in the operational level of war. Group and squadron commanders will be role models for operators in the wings, ready to lead the first exercise and combat missions. Similarly, we will establish a maintenance group responsible for base-level weapons system maintenance and sortie production rates. Like their operator counterparts, maintenance squadron and group commanders will be role models for all wing maintainers. Meanwhile, medical groups will retain their current organization, although we are working changes to home and deployed medical operations for future implementation.

Flying and fixing our weapons systems, as well as mission support, are essential skill sets. Each requires the highest expertise, proficiency, and leadership. The new wing organization allows commanders to fully develop within specific functional areas to plan and execute air and space power as part of expeditionary units, while also giving maintenance and support personnel focused career progression. This reorganization does not fix something that is broken—it makes a great structure exceptional.

Acquisition and Business Transformation

To achieve our vision of an agile, flexible, responsive, and capabilities-based air and space force, we must transform the processes that provide combatant commanders with air and space capabilities. An example of this in action is the Air Force's effort to carry out the responsibilities of DOD Space Milestone Decision Authority (MDA). The Secretary of the Air Force delegated those responsibilities to the Under Secretary of the Air Force, under whose leadership immediate benefit was realized. Adapting an effective process already in use at the National Reconnaissance Office (NRO), the Under Secretary instituted a new streamlined space acquisition program review and milestone decision-making process. This new process was used for the first time in August 2002 in developing a contract for the National Polar-orbiting Operational Environmental Satellite System. This effort creates an opportunity for the Air Force to apply performance and cost pressure on defense industrial firms through their chief financial officers and board of directors by linking executive compensation to contract performance.

In addition to the major process changes for DOD space, the Air Force's Business Transformation Task Force directs and integrates further process improvement and adaptation. Core business and operations support processes—such as acquisition, logistics, maintenance, training, medical, and dental, among others—are crucial, as they ultimately determine our overall enterprise effectiveness and directly sustain combat capabilities. An additional category of processes called "enablers" completes the Air Force enterprise. Examples of "enablers" include: management of human resources, finances, contracts, property plant and equipment, and information. The enablers are important as they facilitate our core capabilities and determine the overall efficiency of our enterprise.

The Air Force will enact business transformation from an integrated enterprise perspective, examining every process and process link. Accordingly, we will employ industry best practices and identify management metrics to improve process efficiency without degrading our enterprise effectiveness; expand our customer's self-service management capability and free up needed resources for the operational communities; and provide real-time, accurate financial data for better decision-making. Already, acquisition reform has effected notable improvements, including:

(1) Streamlined our acquisition and contracting regulations, replacing lengthy prescriptive sets of rules with brief documents that emphasize speed, innovation, sensible risk management, and elimination of time-consuming process steps that have little value. As previously mentioned, our new National Security Space acquisition process is an example of progress in this area.

(2) Created a Program Executive Office for services to bring new efficiency to the growing area of services contracts. This key area, which accounts for nearly half of our procurement budget, had no prior centralized coordination and oversight.

(3) Developed and initiated System Metric and Reporting Tool (SMART), putting real-time program status information on everyone's desktop. This web-based application pulls data from dozens of legacy reporting systems to give everyone from program managers up to senior leadership direct visibility into the "health" of hundreds of acquisition and modernization programs. When fully deployed in fiscal year 2003, it will automate the tedious and laborious process of creating Monthly Acquisition Reports and possibly Defense Acquisition Executive Summary reporting to OSD.

(4) Empowered "High Powered Teams" of requirements and acquisition professionals to create spiral development plans to deliver initial capability to warfighters more quickly, and add capability increments in future spirals.

(5) Designed a Reformed Supply Support Program to improve the spares acquisition process by integrating the support contractor into the government supply system. Contractors now have the same capability as government inventory control points to manage parts, respond to base level requisitions, track spares levels, and monitor asset movement.

(6) Continued, with OSD support, expansion of the Reduction in Total Ownership Cost (R–TOC) program, to identify critical cost drivers, fund investments to address them, and generate cost saving and cost avoidance. We also created standard processes and a business case analysis model to use for initiatives within R–TOC. In fiscal year 2003, OSD allocated $24.9 million no-offset investments to R–TOC that will return $53.2 million through fiscal year 2008. A planned $37.1 million investment across the FYDP will save a projected $331 million in operations and maintenance through fiscal year 2009.

These initiatives are only the beginning of a comprehensive and aggressive approach to reforming business practices. Our efforts today will have a direct effect on efficient and effective air and space capability acquisition both immediately and in the future.

Ensuring Readiness

Integrating systems and expanding business practices will not only have dramatic effects on air and space capabilities, but also reduce readiness challenges. However, we still face daunting, but surmountable, obstacles. We must overcome a multitude of installations and logistical issues to secure flexible and timely execution of expeditionary requirements for joint warfighting.

Reconstituting and reconfiguring our expeditionary basing systems and wartime stocks is a critical element of our force projection planning. While we made significant strides in funding, we require additional investments in bare base systems, vehicles, spares, munitions, and pre-positioning assets. Our infrastructure investment strategy focuses on three simultaneous steps. First, we must dispose of excess facilities. Second, we must fully sustain our facilities and systems so they remain combat effective throughout their expected life. Third, we must establish a steady investment program to restore and modernize our facilities and systems, while advancing our ability to protect our people and resources from the growing threat of terrorism at current, planned, and future operating locations—at home or abroad.

We are making progress. Improved vehicle fleet funding allowed us to replace some aging vehicles with more reliable assets, including alternative fuel versions to help meet Federal fuel reduction mandates. Targeted efficiencies in spares management and new fuels mobility support equipment will improve supply readiness. In addition, our spares campaign restructured Readiness Spares Packages and repositioned assets to contingency sites. Moreover, to increase munitions readiness, we expanded our Afloat Prepositioning Fleet capabilities, and continue acquiring a broad mix of effects-based munitions in line with the requirements of all TF CONOPS.

Finally, our "Depot Maintenance Strategy and Master Plan" calls for major transformation in financial and infrastructure capitalization to ensure Air Force hardware is safe and ready to operate across the threat spectrum. To support this plan, we increased funding in fiscal year 2004 for depot facilities and equipment modernization. We also began a significant push to require weapon systems managers to establish their product support and depot maintenance programs early in the acquisition cycle, and to plan and program the necessary investment dollars required for capacity and capability. Additionally, we also are partnering with private industry to adopt technologies to meet capability requirements. The results from these efforts will be enhanced, more agile warfighter support through the critical enabler of infrastructure.

Expanding AEF Personnel

The attacks of September 11 significantly increased workload and stress in a number of mission areas for our expeditionary forces. Since our day-to-day operation is absolutely set to the rhythm of the deploying AEF packages, we must make appropriate adjustments. Recent and ongoing efforts to maximize the identification of deployable forces and align them with AEF cycles, assisted in meeting immediate critical warfighting requirements. However, some career fields remain seriously stressed by the war on terrorism. Accordingly, our efforts focus on changing processes that drive requirements not tuned to our AEF rhythm. We developed formulas to measure, and gathered quantitative data to evaluate, the relative stress amongst career fields to redirect resources to the most critical areas. We also began a critical review of blue-suit utilization to ensure airmen are used only where absolutely necessary and maximize the use of the civilian and contract workforce for best service contribution and military essentiality.

We are refocusing uniformed manpower allocation on our distinctive capabilities to reduce stress on our active force. Additionally, we are carefully considering technologies to relieve the increased workload. These efforts exist within our longer-term work to reengineer, transform, and streamline Air Force operations and organizations, and have allowed us already to realign some new recruits into our most stressed career fields.

Summary

As the two mediums with the most undeveloped potential, air and space represent the largest growth areas for national security and the greatest frontiers for joint warfighting. As such, air and space operations will play an ever-increasing role in the security of America and her allies. The Air Force will exploit technology, innovative concepts of operations, organizational change, and our ability to embrace creative ideas and new ways of thinking. We will bring to bear the full suite of air and space capabilities for tomorrow's Joint Force Commander—drawing from every resource, developing closely with all Services, and overcoming any obstacle to succeed.

NEXT HORIZON

The events of the last year have emphasized the dynamics of a new international security era. The decade of new states following the Cold War has been followed by the rise of non-state actors, many following a path of aggression and destruction. Yet, just as America adapted to new global dynamics in the past, we will again confront emerging challenges with confidence and faith in our ability to meet the demands of assuring freedom.

The Air Force remains dedicated to drawing on its innovation, ingenuity, and resolve to develop far-reaching capabilities. The ability to deliver effects across the spectrum of national security requirements is the cornerstone of the vision and strategy of Air Force planning and programming. In conjunction, and increasingly in integration with ground, naval, marine, and other national agency systems, the Air Force will play a central role in elevating joint operations. We recognize the greatest potential for dominant American military capabilities lies in the integration of our air and space systems with those of other Services and agencies, and our success in this objective will be evident in every mission to deter, dissuade, or decisively defeat any adversary.

Chairman WARNER. Thank you very much, gentlemen. We will now proceed to a round of questions with 6 minutes each.

First, an administrative announcement to the committee. The committee has presently before it a number of military and civilian nominations, including those for the Under Secretary of Defense for Intelligence, Assistant Secretary of the Army for Civil Works, and Administrator of the National Security Administration. These nominations have been before the committee for the requisite 7 days. It is the hope of myself and my colleague, Senator Levin, that we be able to convene our committee at some point today, possibly following a vote on the floor, for the purpose of voting on these nominations with the exception of one, and that is we will defer to the request of one of our members who desires to have a personal meeting with that individual. He has not been able as yet to schedule, so we will defer with regard to the Assistant Secretary of the Army for Civil Works until our colleague on the committee has had a chance to be here.

Now, the questions each of us have. These are very somber moments, not just for those of us who have the responsibility to the men and women of the military and their families, but indeed for every American. We recognize that, as I said earlier, it is the presence of our troops with other troops throughout the world that is providing the measure of diplomacy that grinds on day after day, hour after hour. I commend all of those engaged in the diplomatic efforts, especially Secretary Powell, who has been exemplary in his performance, as well as the Prime Minister of Great Britain, and, indeed, our President have shown a measure of courage and judgment without parallel in contemporary history in trying to deal with this situation, which I personally characterize as the most complicated thing I have ever seen in my years of having the privilege of being here.

But the question of the chem/bio is the great unknown. There is the potential for the use of these weapons, that category of weapons in this conflict should force be needed, and it would be the first time in the annals of U.S. military history since 1918. My father served as an Army doctor in the trenches during that period and I have read through his letters, a short biography he wrote of his experiences, and it was the most difficult situation to deal with, not only from the standpoint of his responsibilities of medical treatment, but for command and control.

From my own assessment of the status of the military, I think the departments have done the best they can with the state-of-the-art technology. Also, this committee in the years that I have been on it made the tough decision, along with the whole Congress, that our military would not use these weapons. Such remaining weapons as we have in the possession of the United States are all carefully housed in places for demilitarization, so there are none in our inventory.

For years, it was thought as a part of military doctrine that the best way to preclude the use of these weapons was to have an equal or greater capability to declare an end to them. That proved to be the case successfully during World War II, but I think it is important that each of you address the efforts of your departments to train and equip our forces, and then your own personal assessment of the level of that training and equipment to meet any possible use of those weapons in such force that may be ordered by the President and other heads of state and governments for the coalition for weapons. Mr. Secretary, what is your assessment of the caliber and quantity of the chembio defense equipment currently deployed with the Army forces in that region?

Secretary WHITE. In my view, Senator, the soldiers we have in CENTCOM area are well-equipped from a nuclear, biological, and chemical (NBC) perspective. The equipment that they have is significantly better in many cases than what we had in the Operation Desert Storm experience. NBC training is an integral part of all Army training activities—the donning of chemical suits, masks, and so forth.

We have checked masks and individual sets of equipment before deployment to make sure they fit properly. We have adequate stocks in the theater of chemical suits, gloves, boots, and headgear for two complete sets for every soldier that is in the Gulf and contingency stocks. Naturally, when you talk to soldiers, there is an apprehension about the chemical environment because we are talking obviously about live agents. We practice against chemical agents, but I believe there is a confidence because of the training and because of the equipment that they will deal satisfactorily with the situation. I am confident they will.

Chairman WARNER. Secretary Johnson.

Secretary JOHNSON. I agree with Secretary White. We have the very best equipment, and as Senator Levin, you, and I saw the marines in the desert donning this gear, they are very serious about it even when it is very hot and difficult to wear, but they understand the threat. The thing that concerns me most is the obvious anxiety that goes through their minds about what they know about, and even worse, what they do not know about, we are doing all we can, but this is of great concern to us.

Chairman WARNER. Secretary Roche.

Secretary ROCHE. Mr. Chairman, the airmen also wear these suits. It is not fun to fly an F–16 in your chemical suit, but the aircraft tends to go low. We train them to fly in them. They are very uncomfortable, but they understand the reason and we are properly equipped for all of our deployed forces.

Chairman WARNER. The question of if force is utilized, and following the judgment of our military command of this situation at

some point in time will be secure in terms of the cessation of combat activities, what level of forces do you anticipate each of your departments projecting that will have to remain in that area of responsibility (AOR) and for what period of time?

I raise that question because General Shinseki appeared before this committee. He gave his views. Those views were subsequently commented upon by the Secretary of Defense, and I understand Secretary White this morning, you are prepared to give the statement on behalf of the Department of the Army.

Secretary WHITE. Senator, what General Shinseki said was in response to that question was, first, that it is up to the combatant commander to determine what the force level is and the duration of it, and, second, the combatant commander hasn't made that decision. General Shinseki has some experience in this, having run the stabilization force in Bosnia, and he is a very experienced officer and he expressed his own personal opinion that it could be several hundred thousand I believe is what he said.

At the same time with the vagaries of this and the variables that are involved in it and the difficulty of predicting an exact number, there are others that would suggest maybe it is going to be significantly lower, and I think we will just have to wait and see as, if the President so orders the campaign, and if we become involved in the stability operation after that, we will have to wait and see how those variables work out, what the specifics are. You have two views on this right now and many theories in support of each view.

Chairman WARNER. Secretary Johnson.

Secretary JOHNSON. Sir, I agree, and the great unknown is the participation of many people, other nations. I was in Bahrain just about the time that you were there to visit with the coalition representatives, and they had people from all over the world. They want to help us in every way possible, and I personally was impressed to see the Japanese, who had three warships in the area. They have an oiler that refuels our ships, 75,000 gallons of oil. But all of those people are eager to participate in any activity after the conflict is over, and I think you'll see a great coalition effort.

Chairman WARNER. Secretary Roche.

Secretary ROCHE. Mr. Chairman, we could not have predicted how many aircraft we needed to keep behind for Afghanistan. It is a very uncertain thing as to how it would end. We had 7,500 airmen in the region. Operation Southern Watch is now up to 35,000, but a lot of what we do by air depends on what we are doing by truck or by ship. Certainly bomber aircraft we only use two of the three in Afghanistan, fighter bombers, we have used 117s. It is a combination of how fast it goes, to what degree can support come in by truck and ship, and to what degree it has to be funneled.

Chairman WARNER. I'd like to make a personal observation here and defer this question to another colleague. When I was privileged to be in the department many years ago during the war in Vietnam, we had a most unexpected and tragic series of scandals at the various academies. The Secretary of Defense constituted the three Service Secretaries as a committee to examine this and to determine how best we would address the problem. We did that.

But I remember in the course of that responsibility of assessing the problem, how we correct it, listening to many very senior and

retired officers and their reverence for the academy system and how it is to always represent a model institution of learning, discipline, and all the other attributes that we try to create in our educational system.

Also, Members of Congress are intimately involved with these because we are privileged under the law to make nominations, and I don't think there is one of us in our travels that are not deeply moved when a young person comes up and says with great pride "Senator, I attended the Academy because of your nomination." It is a very special feeling.

So we were as a group on this committee very deeply moved when the allegations arose with respect to the most serious types of disciplinary breakdown and fracture in the Air Force Academy. I commend you, Mr. Secretary, for the swiftness with which you addressed this and I commend my colleague, the Senator from Colorado, Mr. Allard, who promptly in consultation with me and others proceeded to have this committee fully involved. But I think it is important, and Senator Allard and I incorporated this in our letter to the Department of Defense, that each of you look at your own institutions to make certain whether or not allegations are present of the kind involved in the Department of the Air Force.

It has come to my attention that there are letters coming in with regard to a second inclusion. I will wait for the Department of Defense to address those. I brought those to the attention of the Department. Senator Ben Nighthorse Campbell likewise has worked on this, so I will defer the question to my colleague from Colorado when it comes his turn.

Senator Levin.

Senator LEVIN. Thank you, Mr. Chairman. For reasons that you have indicated the potential future costs of our actions in southwest Asia are difficult to assess, but I do understand that each of your departments has produced some cost estimates for supplemental funds that we would be required to spend through the end of the fiscal year under a number of different assumptions. One, that the current presence in the CENTCOM area is maintained without actually fighting a war; the other assumption is that we do fight a war and then engage in post conflict stability operations.

Have your departments, in fact, generated cost estimates, Secretary White?

Secretary WHITE. Yes, we have. We have had detailed discussions with the Comptroller of the Department, Mr. Zakheim, and no final decisions have been made about how much of a supplemental fee will be requested or what the timing of it will be.

Senator LEVIN. How many cost estimates have you submitted?

Secretary WHITE. We have been through a number of iterations to make sure that our cost estimates for the operations and maintenance, the estimates, how much money it will cost to reconstitute a force given that the President does direct an operation, all these types of details we have scrubbed through with the comptroller's office.

Senator LEVIN. This would be the supplemental funds for this fiscal year?

Secretary WHITE. 2003.

Senator LEVIN. What is the range, highest and lowest?

Secretary WHITE. Currently if you break this up into the piece that is required to support the non-Iraq buildup activities, the Operation Enduring Freedom and Operation Noble Eagle part of this, where we were on the 1st of October steady state since September 11, those cost about $6 billion additional from, assuming that we stay in Afghanistan and other places at about the same OPTEMPO that we have held there for the past year or so.

Senator LEVIN. What about the post-conflict stability operations in Iraq? What is the range for that?

Secretary WHITE. We have not gotten into the details of that, in as much detail as we have buildup and the mobilization.

Senator LEVIN. To the extent you have gotten into it, what is the range?

Secretary WHITE. I think looking at it from the Army's perspective, looking at the operation as it is currently set up, the Army's bill could be roughly somewhere between $20 billion and $30 billion.

Senator LEVIN. That is for the range of the cost of the post-conflict stability in 2003?

Secretary WHITE. That is the cost to mobilize the force above what we have for Operations Noble Eagle and Enduring Freedom to do the preparation tasks, to properly prepare that force for a potential operation, to transport it and get it in position, and then to bring it back at some point.

Senator LEVIN. Does that include the cost of maintaining the force in Iraq after Saddam Hussein?

Secretary WHITE. Through the end of the year.

Senator LEVIN. Through the end of the year. So that is the extra cost of the war?

Secretary WHITE. No. Because the details of how long the war would last and how it would play out, there are so many variables associated with that, I'd prefer not to get terribly specific.

Senator LEVIN. That doesn't include the cost of the war?

Secretary WHITE. The cost of the war would be in addition to the base cost of $20 million.

Senator LEVIN. Mr. Secretary, do you have that? The cost of maintaining the force?

Secretary JOHNSON. I do not, sir. We are a fully deployed Navy and Marine Corps. That is a blessing and a curse. We will run out of the first area operations and maintenance funds by midsummer. Depending on how Secretary White has talked, the assumptions, the numbers vary widely. We are in discussions with the Secretary of Defense's office continually, and the assumptions in dollars change and I am not prepared to give a number.

Senator LEVIN. You are not prepared to tell us what the range is, the high and low, for post-conflict stability operations?

Secretary JOHNSON. Our ranges are for just what we are doing now in the $3 billion to $4 billion. If you go into higher ones, we are near what Secretary White talked about, but I do not have anything more specific.

Senator LEVIN. What about the Air Force?

Secretary ROCHE. The Air Force has a movable range depending on what you are talking about. It depends on the level of Operation Noble Eagle, which can go from $250 million in a peaceful state up

to a billion a year if we have to maintain fighters over the U.S. We are able to do OEF because we are in a specific state in Afghanistan.

We are more fungible in that we have done no work on the post. We tend to fly stuff back, and we have the mobility forces going, but we have a PACOM that is emerging. We have been ordered to put that aircraft in Guam. Guam is just coming through a typhoon, so there will be work done there in order to base more in Guam. That is uncertain. Put it all together, the part that is, has downward variance is OEF and Operation Noble Eagle is $7.5 billion, Iraq could be as much as $7 billion, but if it is earlier we will pull staff back and then PACOM is just emerging. We are not sure what that is.

Senator LEVIN. My time has expired.

Chairman WARNER. Thank you very much, Senator Levin.

Senator Inhofe.

Senator INHOFE. Thank you, Mr. Chairman. Secretary White, I have taken a lot of interest in the ultimate solution of what I consider to be a real crisis in our capability. I don't think there has ever been a time the Service has been more cooperative in working together to a solution, the NLOS solution that will be compatible with our Future Combat System. But at the same time, I look at that as being one that would be a part of the FCS. It is something that is needed in addition to that, and that is to get us out of this old antiquated equipment that we are using right now. You would probably be surprised to find out there are four countries making an artillery piece that is better in range, accuracy, and rapid fire than ours, including South Africa.

Now, my concern has been to get that online as quickly as possible. Our target date for rapid deployment would be 2008. My question would be in the event something happens that would delay the FCS, can we continue to keep that date an accurate deployment date?

Secretary WHITE. I think we can. The progress since we talked about this last year has been excellent. The use of funds to transfer the technology from the Crusader program, we put those funds to good use. It will be the future milestone coming up in May, and my view right now is not only will we hold the schedule and NLOS cannon, but there will be an implementation of FCS that will hit the 2008, 2010 time frame. I think it is possible.

Senator INHOFE. Thank you very much. Closely related, there has been a lot of discussion about the fifth and the sixth Stryker Brigades. I have had an experience when we were mandating the competition and I conducted competition to M–113 and Stryker. I came back without any question in my mind that it was necessary to do that. I see the Stryker Brigade as a bridge to FCS. I'd like to have you tell us a little bit about yours, an update as to the need for the fifth and the sixth Stryker Brigades and where we are right now.

Secretary WHITE. Certainly. The fifth brigade will go to Hawaii with the 25th Division and it will be in the 2005 budget. The sixth brigade will go to the Pennsylvania Army National Guard, and that is in the 2006 program. We have had extensive discussions with the Secretary of Defense, with the staff of the Secretary of Defense

about the composition of brigades 5 and 6. There are other things we can add to the brigades to make them more robust, make them more of a stepping stone to the Objective Force, as you said.

We owe the Secretary a study on precisely how we should configure brigades 5 and 6. We will have that to him in the near future, and the money remains in the program for the fielding of those. From an Army's perspective, I think it is critical that we field brigades 5 and 6 on schedule. Brigade 1, by the way, that you saw at Fort Lewis will hit its initial operational capability (IOC) on time this summer.

Senator INHOFE. How many are delivered right now?

Secretary WHITE. We are producing about 45 a month and the acquisition of it has been a very good story from an efficiency-of-acquisition perspective.

Senator INHOFE. Secretary Roche, let me tell you how much I personally appreciate the time that you were confirmed. I think you and I took a trip, your first trip after confirmation, but we had a chance to talk about the dilemma we are facing right now with our depots, and the fact that it has been a long history in looking at this that it's answering actually a national security problem that we would have should we become dependent upon someone from the outside for core capability. You made it very clear on that trip—I remember a statement—that the Air Force is not going to get in the real estate business, and everyone interpreting it is wrong. But right after that, we passed the largest bond issue by a 72 percent margin that's ever been passed in that part of my State of Oklahoma. Your initiatives are working when for the first time we are getting something in there where we can be competitive, where we can deal with something, with equipment that's newer than World War II technology. I appreciate that very much and your workforce-shaping initiatives that are working, now that we can turn out a KC–135 in 200 days.

I ask you, first of all, about that. Second, is there any legislation that's needed to have you continue on this path that is in my opinion very successful?

Secretary ROCHE. Thank you, Senator. One of the things that I would like to mention that the metrics Tinker displayed were for both Boeing and place in Alabama, the other ALCs, those people said none of those people are better than we are, and they got better. The place is dramatically cleaner. I think that you have noticed that our ability to get airplanes through the place is much faster. Our models are coming through faster. The E models are old. The partnering initiative that Tinker was one of the leaders on has really paid off, and we have now gone to all the companies who are producing or will produce aircraft for us in the future and said this model really works.

I was personally involved with one. It's beneficial to the country and industry. Tinker has the lead on some of that, and in fact, we are asking that some of the larger companies producing aircraft start to work with the ALCs early on. So far it's not so much legislation that we need as to continue to try to get the change both in terms of the original manufacturers and at the ALCs, but it's been a tremendous progress in something like 20 months, tremendous progress.

Senator INHOFE. Thank you very much. Mr. Chairman, my time has expired. Can I just ask a question of Secretary White? Secretary White, when we had the chiefs, we had the same question about the downsizing that has taken place. I'd like to have you give us an analysis not here, but for the record, where we are in end strength in the Army, including the Reserve components.

Secretary WHITE. I will do that.

[The information referred to follows:]

The congressionally-mandated fiscal year 2003 active Army end strength is 480,000; the Army National Guard is 350,000; and the Army Reserve is 205,000. The Army expects to exceed this end strength target, as well as the appropriated average strength of 480,000 manyears.

The active Army finished fiscal year 2002 with an end strength of 486,543; the Army National Guard finished fiscal year 2002 with an end strength of 351,078; and the Army Reserve finished fiscal year 2002 with an end strength of 206,682.

The active Army's fiscal year 2002 average strength was 482,733, which was approximately 8,700 more than the budgeted level. The current projection for fiscal year 2003 active Army end strength is 490,300, which includes an estimated military occupational specialty stop-loss strength of 2,585. This estimate could increase by as much as 10,000 to 15,000 with the implementation of unit stop-loss for units involved in operations in Iraq.

The Army National Guard average strength for fiscal year 2002 was 350,785. Current projection of National Guard end strength for fiscal year 2003 is 350,000. The Army National Guard expects to meet or exceed that goal.

The Army Reserve fiscal year 2002 average strength was 207,396, which was approximately 4,731 more than the budgeted level. The current projection for fiscal year 2003 Army Reserve end strength is 211,817, which includes an estimated 70,000 mobilized Army Reserve soldiers. These soldiers are expected to remain mobilized into fiscal year 2004 and are not subject to normal attrition. This will result in the Army Reserve exceeding its fiscal year 2003 end strength by 6,000 to 8,000.

Chairman WARNER. Senator Reed.

Senator REED. Thank you very much, Mr. Chairman. Thank you for your testimony and your service. There was an article in the Kansas City Star, where the first line is troops heading to the Iraqi theater are not getting health screening, especially blood sampling mandated by a law enacted by Congress in 1987. Is the Army not screening?

Secretary WHITE. My information is that we are screening. I think it's imperative that we screen. We have DNA samples, blood samples from every soldier that deploys. I will check that information.

Senator REED. I understand that, and I am not the expert, but that the DNA samples are different than the blood screening mandated by this congressional act, but I am not certain of that.

Secretary WHITE. I will get you information for the record.

[The information referred to follows:]

DOD Directive 5154.24, dated October 3, 2001, requires the Armed Forces Institute of Pathology to maintain a repository of DNA samples from members of the Armed Forces. The DNA sample is a specimen collected by swabbing the inside of the service member's mouth, and is not a blood sample. The Army is currently at nearly 100 percent compliance for active component troops, and at nearly 90 percent compliance for Reserve components, and is currently working to correct the quality and technical errors in the collection process in order to reach the goal of 100 percent.

Section 1074f of title 10, United States Code, enacted on November 18, 1997, directs that the pre- and post-deployment screening of all service members include the drawing of blood samples. The Army is currently in compliance with the guidelines. The blood sample is drawn as an HIV test, with the remaining blood being stored. All soldiers will have current HIV tests and associated blood samples before deployment.

Senator REED. Secretary Johnson, is the Navy following this as well?

Secretary JOHNSON. Yes, sir. We have had no challenges so far.

Senator REED. Secretary Roche?

Secretary ROCHE. I have gone through the line to make sure we do it correctly. We do a baseline on someone, including blood, DNA, etc. We monitor conditions in a particular area. When they come back off the rotation, we do another medical review to compare it to the baseline and anything we may have learned overseas. I think we have this reasonably under control, sir.

Senator REED. Secretary White, many of the questions this morning focused on the forces that will be needed to not only decisively engage in defeat of Iraq if so ordered, but longer term occupational forces. That puts a particular burden on the Army, Navy, Air Force, expeditionary forces. Do they have the flexibility of reconstituting and falling back very quickly? If there is extended occupation, the Army will bear the brunt of it. I wonder at this point what percentage of our Army has been committed to the Iraqi theater operations roughly?

Secretary WHITE. Active component (AC) plus Reserve component (RC) probably a third. You are talking about Central Command (CENTCOM) in general, but all the deployments around CENTCOM, and it's working on AC and RC and those that have been alerted to deploy, maybe 30 percent.

Senator REED. What additional percentage has been allotted for possible deployments?

Secretary WHITE. That would be the top end figure.

Senator REED. Of course with this deployment forward, you have to have a rotational force upon it. Essentially, the deployed force together with their rotational force could be 60 percent of the Army?

Secretary WHITE. If you look at Afghanistan, we have rotated three different divisions into Afghanistan to date—82nd Airborne to 10th Mountain to 101st Airborne.

Senator REED. One of the reasons I am concerned about it is that, generally, these things usually take longer and more people than you expect even in your most realistic estimate. I recall last October when plans for the operation talked about a force of 75,000 Army ground personnel with air power. There are 300,000 troops in the theater right now. I think we would be wise to assume the worst case which would drive numbers up, I know your discussion with Senator Levin suggested that you have a range, but my guess would be it would be the top end, not the bottom end?

Secretary WHITE. Our experience, we are in our eighth year. Kosovo, we are in our fifth year, I do believe although at much lower levels than we initially would suggest it's a one-term effort. The Secretary of Defense made the point that the hope would be that very soon it would be an international effort, and the others would contribute, which would lower the burden on us, as has been the case to a certain extent in Afghanistan.

Senator REED. Let me raise the pressure that we are seeing back home with the National Guard and Reserve. This falls most particularly in the Army National Guard and Reserve units, with the Air Force also. My troops have basically all been mobilized for a

year. My suspicion, though, because of the expertise of these soldiers, military police officers, civil affairs people, information specialists, that those are precisely the people that you need not this year, but the following year. Where are you going to get them, because I can tell you the imposition, the disruption, these are patriots but they have to come back. You are going to have to replace them is my point.

Secretary WHITE. I think the long-term concern is if we stay at current levels of mobilization, eventually it's going to impact on Reserve component retention and recruiting as well. Now, in the first 18 months of the global war on terrorism, we have been very fortunate we have not seen that. But a year or 2 years from now, depending upon what level of mobilization of that, we are certainly concerned about that.

Senator REED. Again, this I think applies, but with most impact on the Army, Air Force, illustrative of the Navy, I would assume you are preparing plans right now to meet this very likely contingency and the sooner these plans are presented to us, the more opportunity we will have to look at your proposals, which I think would involve increasing end strength, incentivizing additional retention or Reserve or National Guard or resizing the force between Reserve component and active component, and all of these issues if they are delayed further will slow down I think your ability to respond.

Secretary WHITE. Senator, you know that's all under consideration. I think the Secretary talked about that while he was here. It is a matter of urgency for us.

Senator REED. I did not mean to pick on you, Mr. Secretary. But the Army is the lead, I think, in the forces that will occupy the country. Mr. Secretary, thank you. Thank you all.

Chairman WARNER. Ladies and gentlemen of the committee, there is now a vote. What I would suggest we do is that the next allocation of time be equally divided between Senator Dole, Senator Ensign, and we will take you and then we will adjourn for the vote until Senator Allard returns. I will see that the vote is held. Senator Dole?

Senator DOLE. Upon recent visits to military bases in North Carolina, they have given me initial insight into what our military personnel and families are facing as they go through repeated deployments. I would like to have each of you discuss family readiness and family morale. First, as you have had an opportunity to reflect on the tragedies that occurred at Fort Bragg, are there lessons that all of the Services have learned, and what are you doing to ensure that both military personnel and their families have appropriate counselling both predeployment and post deployment? This is of great interest and concern to me.

As head of the Red Cross for many years, I put in place a program on mental health counseling for victims of disasters and for families. We streamlined our Armed Forces Emergency Services, which includes counseling, but I wonder if it's not the case that in some instances there is a reluctance to seek counseling because it might be viewed as hurting one's career.

What do you do to anticipate problems where there may be special family stress where supervisors have reported this sort of situ-

ation? Also as I have toured our bases, I was very impressed with the support network that is there. I visited, in each instance with the military spouses, and they had an excellent support network. Are we ensuring that this sort of support network is available on all our bases and that it has strong command support?

Secretary WHITE. First of all, family issues are readiness issues. We spend an enormous amount of time on that. You raised a key point. We found when we examined the Fort Bragg situation in great detail that the tragic situation that occurred last summer, though not in all cases, we need to have ways for people on a confidential basis to deal with these problems and seek help and counseling and so forth without it becoming a chain of command issue, which of course stifles that. We have put in place changes to our family advocacy program to see to it that those avenues are open. We spent a great deal of time both pre- and post-deployment with spouses when they return and we consider the matter of utmost importance.

Secretary JOHNSON. We have long had this challenge, of course, and we have a program we call return and reunion and we actually have an ops plan, if you will, to prepare the families and also the members when they return for reunion. We work with key volunteers—key spouses—and we have done well, but we always are trying to improve and we learn a lot from the Army difficulties. We are trying to move forward in a very positive way. I also visit with the families, and families are very important. I happen to have a son who is a reservist activated in Kuwait. I know from a personal standpoint about the importance of the families.

Secretary ROCHE. Senator, we have had an expeditionary Air Force operation now for about 3 or 4 years, and in the process of that, we have had to go through this in the past with people deploying all of the time. Of our 360,000 active duty airmen, we have over 100,000 in this rotation; now it's up to 260,000, so from the very early days, we have had to worry about particular bases supporting those who were deployed. Because we flew people from so many bases, each base has a program to be available to the families, worry about them, making sure they don't have other issues, getting to the schools, make sure schools know deployments are happening. So this is not necessarily new.

Senator DOLE. I see my time has expired, but I would like to submit some questions for the record that you should answer with regard to impact aid and a couple of other questions, please.

Senator ENSIGN [presiding]. Let us assume the President decided he was going to do as some had suggested and give the inspectors whatever period of time, whatever period that time was, you are building up in case we have to go to war. The costs that he was talking about, would there be any difference in those costs through 2003 if we just continued with the weapons inspectors and we built up because we have to be prepared for war? Is there any difference in the costs than what he was talking about?

Secretary WHITE. Senator, the costs I was talking about, most of them are already sunk.

Senator ENSIGN. That was the point I was trying to make. If we go with just weapons inspectors, the costs that you all are talking about are pretty much there. The costs that you did not include

would be the costs of ammunition, of operations within the war itself. Isn't that correct?

Secretary WHITE. That's right. Because we have paid to mobilize a force and a significant amount of Reserves. We paid to transport it.

Senator ENSIGN. For the Army and Navy, that would be yes? The Air Force would be different?

Secretary ROCHE. If we are at war, we will probably take Operation Noble Eagle and go up to a large aircraft going overhead which will have our costs go up somewhat exponentially. In terms of having the costs of having people deployed, we sacrificed some things like training, school housing. Flight training is not being done the way they want it to be. Those costs will start to accumulate. Our presumption is that we will be there as long as we have to be, but there is a price.

Senator ENSIGN. The point is if you would just have the military there, those costs were being incurred?

Secretary ROCHE. The cost of having that many of our people deployed, the incremental cost is high. So we pay a cost just to be deployed, which is something over and above what we normally would be paying.

Senator ENSIGN. Just briefly, I do not know if you want to comment on this, that's the future we are looking at with bases in Europe. We are looking at another round of Base Realignment and Closure (BRAC) here, but there is also with General Jones what he has talked about as far as shifting the bases. Did any of you want to comment as far as what you see as the future of those bases and your general impressions of that?

Secretary WHITE. As the Secretary of Defense talked about in the hearing, the combatant commanders are taking a look at repositioning and the strategic requirements going forward. We actively support those reviews. General Jones, for example, combatant commander in Europe, is part and parcel with him and working with how we should be stationed and positioned in support of our naval applications. Korea was mentioned. We actively support them because it's enormously important to us, so we are studying where the force is going to be positioned and whether we rotate units in or whether they be permanently stationed there. There is a tremendous amount of work going on, and we are right in the middle of it.

Senator ENSIGN. One other quick question, and then turn it over to Senator Allard, since the other senators have left. You can continue to chair and go on since the rest of the senators will be coming back.

There was an article in yesterday's Early Bird that discussed what is called the Pentagon's private Army. The Army they described is comprised of individuals hired by private military companies to handle mostly noncombat jobs so our military forces can focus on their core mission. The article stated during the Gulf War, there was one contractor for every 50 to 100 soldiers; that ratio is now one for every 10.

First of all, are those figures correct? Do you see us continuing in that direction? What other types of functions currently performed by the military are we looking to contract out? Also in light

of the recent incident in Colombia involving contractor civilians, what are the rules that apply to these individuals who happen to find themselves in harm's way? Can they carry weapons, are they considered prisoners of war if captured?

Secretary WHITE. For the Army's part, we extensively employ contractors for a wide variety of things. We are continuing to do that with this Third Wave initiative, as I mentioned, at the start and the numbers are bigger. I think the trend has been to do more and more of this because you can get a better value proposition than tying up uniformed people with these types of activities. I think it's a positive thing that we ought to be doing. I am not an expert on rules of engagement. I will provide that for the record.

[The information referred to follows:]

Employees of civilian contractors serving with U.S. Army units in contingency operations are in noncombat positions. Normally, employees of civilian contractors are not issued weapons, but instead rely upon soldiers responsible for rear area security. If circumstances warrant, a commander may issue a personal weapon, a pistol or rifle, to an employee of a civilian contractor, provided the employee has received firearms training and is determined to be competent in handling the weapon safely. The employee may use the weapon for personal self defense only.

An employee of a civilian contractor is an individual accompanying the Armed Forces and, as such, is entitled to prisoner of war status if captured by the enemy.

Senator ENSIGN. Any of you wish to comment on that?

Secretary JOHNSON. We use contract labor when our ships go into port. When I was in Kuwait, I saw more and more contract activity moving things. I remember in Operation Desert Storm that most of the ground movement was done by contractors. We use them when we need them. We do not have as quite a regimented a program as the Air Force and Army do.

Secretary ROCHE. The nature of air power, we do have contract labor. We probably have a ratio that's even higher. They are further back. They are not in an area where they are in combat. I know of no occasions where we actually have aircraft in harm's way, but certainly it would be involved in maintenance for software work, software support, and they perform functions well done by them and allow us to take uniform airmen and use uniform airmen.

Senator ENSIGN. Thank you. I will turn it over to Senator Allard.

Senator ALLARD [presiding]. Thank you, Senator Ensign. First of all, as Chairman, I am going to ask unanimous consent that I make my opening statement part of the record. Also I would like to enter into the record as well a letter to Secretary Roche of the Air Force concerning rapes and sexual assaults. Without objection, so ordered.

[The prepared statement of Senator Allard and the information referred to follow:]

PREPARED STATEMENT BY SENATOR WAYNE ALLARD

Thank you, Mr. Chairman. I appreciate the willingness of the Service Secretaries to appear before us today. Our forces continue to fight in Afghanistan, assist forces in Yemen, Djibouti, and Georgia, and defend our homeland. Now, they are poised to take on a new mission: the invasion of Iraq. The mobilization of thousands of men and women in the Reserves and National Guard are indicative of the size and scope of our current military operations. Despite many hardships, our soldiers, sailors, airmen, marines, and coast guardmen have stepped forward and embraced their country's call to arms. We thank them for their service. We thank each of you for providing them with the leadership they need to defend our Nation.

I would like to take a few moments to address a very serious concern of mine. Four months ago, a former cadet at the U.S. Air Force Academy approached me about her recent experiences at the Academy. She said that she was sexually assaulted, but was punished by the Academy for drinking and having sex in the dormitories. Since then, more than 25 current and former cadets who were allegedly sexually assaulted or raped have approached me and my staff.

Three weeks ago, I wrote a letter to Secretary of the Air Force James Roche requesting a full and complete investigation into these allegations. The Chairman of the Armed Services Committee, Senator John Warner, and I sent a second letter last week requesting that the Department of Defense Inspector General review the Air Force's investigation. I also gave Secretary Roche a letter following my meeting with him on February 25, which asked him to answer several important questions. I have yet to receive a response from the Air Force.

The Air Force did send an investigative team to Colorado Springs. The team spent 10 days at the Academy and, from my understanding, was able to get an understanding for the school's current system for addressing sexual assault and rape cases. However, I also understand the investigative team did not interview any current or former cadets who have reported being sexually assaulted or raped.

The Air Force tells me that the investigation is not over and that the investigative team may return to the Academy to meet with the victims. My office has been attempting to facilitate this process. I have also been told that the Air Force will be setting up a hot-line at the Department of Defense that will be available for cadets to call. I think these actions are a good start, but it is not enough.

I am concerned that the Air Force has not offered confidentiality to the cadets. How can the Air Force expect cadets to come forward and not be given confidentiality, particularly after watching the Academy punish and ruin the careers of several of their classmates who made the mistake of reporting a sexual assault or rape? I am also waiting to see if the Air Force will work with the local rape counseling service in Colorado Springs, which reportedly assisted 28 cadets who were raped.

Over the last couple of days, I have been asked several times if I thought this current crisis at the Air Force Academy resembled the 1991 Navy Tailhook scandal. In many ways, I think this scandal is worse. It seems clear to me that the problems at the Air Force Academy go much deeper than those that became apparent during the Tailhook scandal. The entire support and legal system at the Academy appears to have failed. The Academy can't even tell us how many cadets reported a sexual assault or rape.

These failures begin with leadership, but they do not end there. The system is broken and must be fixed if we are to ensure the safety of the cadets.

Many of my colleagues here today have urged and in fact nominated high school students to attend the Air Force Academy. We stressed the honor and integrity of the institution. I still believe in the Air Force Academy, and I am interested in working with the Air Force to correct many of the problems at the school. But first, we need to have a full and complete investigation and that begins by working with the victims. So, I urge you, Secretary Roche, to consider all options that will encourage victims to come forward. I also encourage you to cooperate with the Defense Department's Inspector General when he begins his investigation.

Thank you, Mr. Chairman, for the opportunity to address this important issue. I look forward to discussing it in more depth during the question and answer period.

February 25, 2003

The Honorable James G. Roche
Secretary
United States Air Force
1670 Air Force Pentagon
Washington, DC 20330-1670

Dear Secretary Roche:

Thank you for meeting with me today to discuss the Air Force's on-going investigation into several cases in which cadets were raped or sexually assaulted at the United States Air Force Academy. I appreciate your willingness to take a personal role in this matter. It is my hope that the Air Force investigation will produce a number of recommendations that will address the inadequacies of the Academy's current system for assisting cadets who may have been raped or sexually assaulted.

In order to better assist those former and current cadets who have approached me and my staff, I would appreciate it if you would respond to the following questions:

1. I understand that there is some confusion about the number of cadets that have raped or sexually assaulted at the Academy. Can you please provide me the number of the cadets that have reported rapes and sexual assaults to each of the following: the CASIE Program, the counseling center, and the Academy hospital?
2. I understand that several cadets who may have been raped or sexually assaulted were punished before the rape or assault investigation was completed. What is the process for disciplining cadets who may have broken Academy rules during an incident where the cadet was either raped or sexually assaulted?
3. A rape or sexual assault can be very traumatic, particularly if the victim is forced to interact with the perpetrator. What is the process for preventing contact between the victim and alleged perpetrator during an investigation?
4. Some former and current cadets have reported difficulties in securing their rape kits and investigative reports. These cadets inform me that they were told by the Office of Special Investigations that their rape kits and investigative reports were lost. What are the procedures for ensuring that evidence is handled carefully and stored properly?
5. A number of victims have complained about not being permitted to bring someone with them to OSI questioning sessions or to meetings with senior Academy officials. Are there regulations that prohibit the attendance of either a friend, family member, or advocate of the victim? If so, can you please provide a copy of these regulations?

6. All of the former and current cadets that have approached me have expressed concern about not knowing whether or not their alleged assailant was punished. Is there a procedure for informing victims of the punishment received by the assailant?
7. When a cadet is raped or sexually assaulted, in many cases, alcohol is involved. While it is well-known that cadets are not permitted to drink, it appears that the consumption of alcohol is common practice. What is the Academy doing to discourage underage drinking?
8. Some former cadets who had been raped or sexually assaulted had expressed an interest in returning to the Academy. Would the Academy consider readmitting these cadets?
9. In January 1994, the General Accounting Office conducted an investigation into whether Department of Defense military academies were complying with the Department's requirements for sexual harassment eradication programs (Report #NSIAD 94-6). The GAO found that the academies had not fully met the Department's policy of providing an environment that is free from sexual harassment. In fact, GAO found that between half to about three quarters of academy women experienced various forms of harassment at least twice a month. The GAO recommended the following recommendations:
   A. Gather and analyze data, through routine reviews of case files, student surveys, and focus groups, on the extent of reported and unreported incidents of sexual harassment.
   B. Evaluate, on a systematic basis, the effectiveness of sexual harassment eradication programs on the basis of such data.
   C. If the eradication programs are not proving to be effective, institute different approaches to work toward eradicating sexual harassment. Such approaches could include expanding the explanation of behaviors that constitute sexual harassment, issuing sexual harassment pamphlets or brochures, and offering lower risk confrontation options.

Again, I appreciate your interest in this issue and your response to my questions. I look forward to working with you and your team to improve the protection of cadets and the process by which assistance is provided to them.

Sincerely,

Wayne Allard

Wayne Allard
United States Senator

Senator ALLARD. I want to say a few things about the Air Force situation and ask Secretary Roche a few questions. Several reporters over the last week have asked if I consider the current situation at the Academy to be worse than the Navy's 1991 Tailhook scandal. I told them that I think it's worse and here's why.

We have a system breakdown at the Academy. Over 25 current and former cadets sexually assaulted or raped have contacted my office. Each one of these cadets provided information on how the Academy failed to adequately support them after the reported sexual assault or rape. Perception by some of these cadets was that they were actually punished for reporting. Clearly, Academy support and the legal system failed to assist these cadets.

This problem begins as leadership, but it doesn't end there. I appreciate the comments by both Secretary Roche and General Jumper that this cannot be tolerated. Secretary Roche, I appreciate your personal involvement. I was pleased when you ordered an investigation into this matter. However, I believe more needs to be done. The victims need to feel good about the process. They need genuine action that seeks to solve the problem. Having just made this brief comment before the question, let me proceed on to the questions.

The investigation, Secretary Roche, that you ordered has been proceeding now for over 2 weeks. Can you give this committee an update on the progress of the Air Force investigation?

Secretary ROCHE. Yes, sir. We want everyone to know the degree to which you and I have worked closely on this matter and make sure we have a baseline on the record for the United States Air Force, and I speak for General Jumper as well as myself. This is a problem and that cadets are having. In fact, we have cadets who have misused power who have done things that we cannot tolerate, and we will not tolerate any cadet who sexually assaults another. We will not tolerate a cadet who harbors one who had or cadet who was present and allowed something like that to go on, and especially we will not tolerate cadets who harass or who shun that cadet who has the courage to come forward. That's a cadet problem.

It's a climate problem. You are absolutely right. We have to deal with a climate that has allowed this to emerge 10 years ago. This is the second time the therapy actions taken 10 years ago were thought to be effective, but in fact we found that they are not. We are on a two-track path here.

First track is to worry about the fact that come June, Senators, as you well know, we will have 714 American women at our Air Force Academy. 218 of those 714 will be brand-new arrivals. We have to ensure that their parents believe that those cadets are safe. We also have roughly 3,400 male cadets. We have to make sure their parents understand that an accusation is not a conviction.

We will always retain due process. First thing we are doing is to get a larger sense of what is happening at the Academy. To this degree, we have talked to counselors there, we talked to professors, and we put out blanket calls for cadets to speak with us as well as any victim past or current, or past and not reported, to come. We have talked to victims.

We are obligated to adhere to privacy standards just as your office is, so when you tell us about a cadet, you recognize we have to ask you, could you ask that cadet if she would speak to us, because we cannot violate the policy. We are learning enough to realize that the change must occur, change in the climate, how we manage the place, how we lead the place has to change. That's the first rule of business.

The second is we have now reviewed on a cursory or in-depth level 54 cases. Of those 54 cases, we are trying to identify which of those that our inspector general will go into in-depth, so some of the parties to a particular allegation will be contacted. The IG will start shortly. We will give them the initial list, give them the whole group, but say these 11 or 12 that you see right now, or maybe more, may emerge. We want to make sure you go into it be-

cause they reflect situations where the person who placed the accusation felt that the system let her down.

We want to have specific review of due process in those cases. There are other cases where the victim chooses not to deal with this again. The part that is the saddest thing—and this is comparable to what is occurring throughout universities in the United States—is that while we have seen whatever we see—whatever the number is, 25, 50—there are probably another 100 more that we do not see. That's a smaller number than the national statistics say occur on universities. But this is not a university.

Any woman going into the Air Force Academy should feel better protected than going to any other university. Therefore, what frightens me most is the climate is affecting so many others who have not come forward. In fact, I was introduced to one and all I could say was I am sorry. We have to get at that. So we will both make changes which will come out by the end of March.

You are the Senator from Colorado. You have long-term interest as a member of the Academy advisory board and also because there are particular cadets who have approached you.

I also would like you and everyone to know that the reason that General Jumper and I are so adamant about this is we cannot bear the thought of criminals being commissioned. We cannot bear the thought of a criminal flying around with a couple thousand pounds of bombs under his wings using his judgment instead of rules of engagement or deciding when he can do something, when he cannot do something, or possibly preying on other of our airmen.

We cannot have that and, therefore, we need for the male cadets to take initiative. We will do whatever we have to do with regard to administration of the Academy. We also, and this is tough, need to ask for courage, ask for a number of the female cadets to come forward. We cannot have them know that there is a criminal who is making it through that place, because when she goes on we want her to worry about the Air Force, not that fear. I'm proud to say with cooperation of Secretary Johnson and Vernon Clark, I have just had an open door at the Naval Academy. Spent last night there benchmarking how we do things, how they do things—best practices.

It's my intent to share everything that we come upon with both Secretary White and Secretary Johnson just in case there is a chance to stop something. The Naval Academy was open with all of the difficulties they are facing, with things that they deal with. The fact that we have this ability to quickly speak among ourselves I think is very important.

I would expect by the end of March that we will have a number of initiatives that General Jumper and I will sign out, and they will affect the climate of that school. Meanwhile, the inspector general for the Department is participating more in an over-our-shoulders watching how we are doing the business, which is fine. As long as we are transparent, we should be fine. We will make the first moves by the end of March. Senator, we are between 60 and 90 days for 217 new recruits to show up.

Senator ALLARD. I do appreciate your further elaborating on the progress of the investigation. You and the investigating team were there about 10 days?

Secretary ROCHE. They were there Friday, and I started a week ago tomorrow. They begged to see their families and get clean laundry. They have certain approaches working with the downtown clinic, TESSA, where they have very strict privacy rules as well. We are trying to ask them and we need time for them to turn, with some of them go back 15 years, and ask those patients if they would be willing to come forward. That would be tough.

We have some telephone appointments with some parents. We have male cadets who have come forward who want to contribute. We have faculty members, female, and others. We have had some of the victims come forward already. We keep trying to create an environment that says it's okay, but we cannot force any of them. Even in your case, you notice the same thing. Your office has been supportive. Some of the women do not want to go through it again, but they want someone to know that something has happened.

When we get the inspector general tasks, they will go by the cases case-by-case to see whether or not there were any holes in due process, but we are discovering larger things, Senator. We are discovering different definitions of sexual assault used that the Academy has compared to at a typical Air Force base.

Benchmark that with the Navy. Secretary of the Navy doesn't have that problem. It's exactly the same definition one place as the other. So uniform military justice can be applied properly and systematically. Because of budget reasons in the past and because of shortage of pilots, we have dropped the preparation programs that we had for naval company officers we called AOCs, commissioned officers who are with the squadrons, but that's a terrible thing to have done but the pressures 5, 6 years ago caused that to happen.

The Navy did not succumb to that. They maintained standards of training prior to becoming an officer. We failed. We failed to empower our senior enlisted at the Academy. The kind of resources that exist are not existent in the Air Force Academy, but they will be.

Senator ALLARD. How many victims have you met with so far?

Secretary ROCHE. We have met with at least six and there are two new cases that have come along.

Senator ALLARD. You have another team?

Secretary ROCHE. TESSA downtown. They have had a chance to contact people. It's starting to converge, climate, power imbalances, putting young women in difficult positions that we ought not to be doing. Come back to the fact that these are adults, they have to deal with these problems themselves. We have to help them, but we cannot have them preying on high school students that will be young officers come June. They must be protected.

Senator ALLARD. We all struggle with this issue of confidentiality. I cannot even give you the names unless they agree to allow me to give them the names. The crisis center has the same problem. We need to get the victim to understand that we are going to treat their concerns seriously. As this confidential issue comes up, and I think there needs to be a frank discussion with the victim as to what is most important, the confidentiality aspect or whether this goes to court, a case, or somewhere or another that it may jeopardize that case somehow or another and sometimes they have to make that decision. But I guess the question I'm going to ask

you is that many of the victims that have approached my office have refused to talk to your investigative team because they fear reprisals and do not want to jeopardize their careers. There are those that say that they would like to have their confidentiality protected. Are you willing to grant confidentiality to victims that might be willing to come forward?

Secretary ROCHE. It's a legal term. It depends what confidentiality is. If a victim comes forward and says I would like my name not to be used, that we can absolutely do. We can be sure that publicly we can be led to that victim. If she reports a crime, we are obligated to go after that criminal and to that degree we have to tell her that if there is a crime involved, if in fact there is an assault, we have to investigate because there is a potential criminal who could be flying one of our aircraft.

This is where confidentiality is the problem. First of all, I'm not empowered to give confidentiality. If I ask a question, the answer has to be something that can be used for official purposes only so we can protect someone's privacy rights. But if there is a crime, we are obligated to go after that criminal.

Senator ALLARD. Many of the assailants have gotten off lightly. How many cadets have been court martialed for sexual assault or rape and can you share with this committee how many cadets have been court martialed at the Air Force Academy for sexual assault and rape for the last 10 years?

Secretary ROCHE. I'm going to give you a preliminary number. It changed over the weekend. Recordkeeping is not all we had wanted it to be. There has been one formal court martial where the assailant was acquitted. However, there was another court martial where alleged assailant pled guilty and went off to jail for 7 months, so far I know of two. In many of the other cases, there has not been sufficient evidence to fit the element of the crime under the uniform code, but because we are finding out enough administrative wrongdoing by the individual, we have thrown the person out. That's different from being able to take them to trial. One of the things we know is that in the future if a young person has been assaulted, we can educate her on what is the difference between harassment and assault so she understands that. Then we want to put with her very quickly someone who can explain the law, explain the process, so she understands what is going to happen and that there are defense counsel, understand that the process of the crime has elements of the crime that must be approved.

However, there are administrative things. When we have not been able to take someone to court martial, oftentimes we have been able to throw them out. We get to a point of a "He said, She said" situation which is difficult to take to court. The other Academies have that same problem.

Senator ALLARD. I think we really need to instill confidence in the system so victims, when they report a rape, know that the rape itself won't put their military careers at risk. This is the problem that we are willing to take on.

Secretary ROCHE. We are at a point now when we go to look for senior officer, for instance, the superintendent will be retiring this summer and we are looking for replacement, it's sad we have to go back to make sure no one ever accused the general officer of some-

thing even if it was unsubstantiated because it's such a delicate matter. We cannot start a discussion by saying, "But in your past. . ." So we are taking this very seriously, and we do not want a situation where a victim suffers through her career because of something that was not her fault in any way, shape, or form. There is nothing in the breaking of regs that justifies a sexual assault against any of these women. Nothing.

Senator ALLARD. Just to wrap it up, Mr. Chairman, if I might. On February 25, you and I met in my office to discuss this issue. During that meeting, I gave you a detailed letter asking a number of questions pertaining to the investigation. I just ask that you put in the record your responses, what is the status of your response to that particular letter.

Secretary ROCHE. We have a draft, but it's changing. I do not want to give you the draft, rather at least wait until the end of March and say, as of the end of March, here are the answers based on what we have found, but I have been given one draft already. Too much is changing. We want to go back and see if the folks at TESSA have some insights that are different than we obtained. We are going to fold those in. There is one in the GAO report that I want to spend more time on. They are all quite useful.

[The information referred to follows:]

SECRETARY OF THE AIR FORCE
WASHINGTON

JUN -4 2003

The Honorable Wayne Allard
United States Senate
Washington DC 20510

Dear Senator Allard:

This is in reply to your letter asking several questions regarding our actions with respect to the United States Air Force Academy. Much of this information has already been provided to you; however, I summarize it here for your convenience.

Question 1: I understand there is some confusion about the number of cadets that have been raped or sexually assaulted at the Academy. Can you please provide me the number of cadets that have reported rapes and sexual assaults to each of the following: the Cadets Advocating Sexual Integrity and Education (CASIE) program, the Counseling Center, and the Academy hospital.

Answer: Data on reports of sexual assaults at the Academy are derived from records at the Counseling Center (which encompasses CASIE), and at AFOSI, which investigates complaints of sexual assault. Counseling Center records indicate that between January 1993 and January 2003, they have received 137 calls into the hotline or reports of alleged sexual assaults; however, this number includes at least 16 reports by cadets assaulted before the cadets entered the Academy. Of the remaining 121 reports, 111 involved cadet victims and 84 alleged cadet assailants and 72 alleged cadet-on-cadet assaults. We do not have separate information on reports to the Academy hospital; under Academy regulations, all reports of sexual assault are to be referred to the Counseling Center.

As you know, reports to CASIE and the Counseling Center during this time period were confidential. We have no way of ascertaining whether these complaints could be substantiated nor, in most cases, identify the complainant. Not all of these complaints were reported to the chain of command or to AFOSI for investigation, and we cannot determine with certainty how many of the cases investigated since 1993 are included in the Counseling Center statistics above. At present we are aware of 61 sexual assault allegations at the Air Force Academy involving incidents that occurred; and were reported to the Academy, during the ten year period 1993 through 2002, and that resulted in investigations. I should emphasize that these are numbers of allegations, not all of which resulted in evidence a crime had been committed.

In our March 26, 2003 Agenda for Change at the Academy, General Jumper and I have directed that in the future, all allegations of sexual assault will be reported to the Academy's chain of command immediately and will be investigated by AFOSI, as is the case in the rest of the Air Force.

Question 2: I understand that several cadets who may have been raped or sexually assaulted were punished before the rape or assault investigation was completed. What is the

process for disciplining cadets who may have broken Academy rules during an incident where the cadet was either raped or sexually assaulted?

Answer: Cadet Wing Instructions provide that cadets who disclose their own misconduct (e.g., underage drinking; fraternization between 4th class and upper class cadets, etc.) in the course of reporting a sexual assault may be granted immunity from cadet discipline (referred to as "amnesty" at the Academy) for that misconduct. A grant of such amnesty was, by design, discretionary within the chain of command. In the Agenda for Change, General Jumper and I have directed in all reported cases of sexual assault, amnesty from Academy discipline arising in connection with the alleged offense will be extended to all cadets involved with the exception of the alleged assailant, any cadet involved in covering up the incident or hindering its reporting or investigation, and the senior ranking cadet present, who will be responsible and accountable for all infractions committed by more junior cadets.

Question 3: A rape or sexual assault can be very traumatic, particularly if the victim is forced to interact with the perpetrator. What is the process for preventing contact between the victim and alleged perpetrator during an investigation?

Answer: In general, there are two mechanisms available to the chain of command to prevent contact between the victim and alleged perpetrator of a sexual assault while the matter is under investigation. The individuals concerned can be issued a "no contact" order requiring them to have no contact with each other; and if the victim and alleged perpetrator are in the same cadet squadron or otherwise housed in close proximity to each other, either or both can be reassigned to a different cadet squadron. We are aware that moving the victim under these circumstances may be traumatic, while moving the alleged perpetrator may be perceived as a determination of guilt before the investigation is complete. This is a question of policy that the new Vice Commandant will be specifically tasked to address.

Question 4: Some current and former cadets have reported difficulty in securing their rape kits and investigative reports. These cadets informed me that they were told by the Office of Special Investigations that their rape kits and investigative reports were lost. What are the procedures for ensuring that evidence is handled carefully and stored properly?

Answer: AFOSI is not aware of any investigations conducted by AFOSI at the Air Force Academy where sexual assault collection kits (rape kits), or reports of investigation, have been lost.

AFOSI's evidence handling polices are similar to the procedures used in other military and federal law enforcement agencies. Specific instructions for collecting, recording, tracking, handling and disposing of evidence are detailed in AFOSI Manuals. When evidence is collected, an evidence tag is filled out with a full description of the evidence. The evidence tag also serves to record each time the evidence changes hands, providing an audit trail for the evidence to comply with legal requirements for proper "chain of custody".

After evidence is properly collected, it is logged into the AFOSI Evidence Tracking System, a computerized database used to maintain electronic control over the location of evidence. The evidence is then stored in a secure room within the AFOSI facility. Only specially designated agents, referred to as "evidence custodians," are allowed access to the

storage room. All evidence custodians are experienced agents who must successfully complete a graded computer-based training course.

Each time a piece of evidence is removed from the evidence storage facility (i.e., to send it to a crime laboratory for analysis), it must be annotated on the evidence tag, and logged out in the Evidence Tracking System. After an investigation is complete, and administrative or judicial actions have been resolved, the disposition of each piece of evidence is governed by specific written instructions received from an attorney assigned to the office of the local Staff Judge Advocate. Because of the potential biological hazards posed by body fluids, the normal disposition is to destroy the contents of all sexual assault collection kits after they are no longer needed.

In order to determine whether evidence was handled correctly at AFOSI Detachment located at the Air Force Academy, the Air Force Inspector General (IG) directed AFOSI/IG to review current and past evidence handling and storage at AFOSI Detachment 808 at the Academy. This review confirmed all evidence, to include sexual assault collection kits, were accounted for. All evidence was found to either be on hand, at the crime laboratory, or properly disposed of in accordance with AFOSI policies Because the unique sexual assault reporting process then in effect at the Academy, some sexual assault cases were never reported to AFOSI for investigation. The Academy Security Forces Squadron maintains physical evidence (rape kits) for two cases. These, too, have been properly accounted for.

Question 5: A number of victims have complained about not being permitted to bring someone with them to OSI questioning sessions or to meetings with senior Academy officials. Are there regulations that prohibit the attendance of either a friend, family member, or advocate of the victim? If so, can you please provide a copy of these regulations?

Answer: There are no regulations or directives that prohibit a victim of sexual assault from being accompanied by a victim advocate or other person during interviews with AFOSI investigators. The AFOSI Crime Scene Handbook requires investigators to ask victims of sexual assault if they want a person of the same sex present as a witness during initial and subsequent interviews, but permits the interview to proceed if the requested witness is not immediately available. AFOSI personnel permit a victim advocate or other witness chosen by the victim to be present during the initial interview, but, depending on the subject matter to be covered, may recommend to the victim that such a third party not be present during subsequent interviews. In preparing for the victim interview, and considering the presence of a third party, the interviewing agents must evaluate whether the third party would help put the victim at ease and thus aid the difficult process of the interview. However, the interviewing agents may conclude that the third party's presence would not be helpful and recommend against their attendance during the interview. This is a case-by-case determination.

There are no regulations governing who may attend meetings with senior Academy officials. That is a matter in the discretion of the officials involved.

Question 6: All of the current and former cadets that have approached me have expressed concern about not knowing whether or not their alleged assailant was punished. Is there a procedure for informing victims of the punishment received by the assailant?

Answer: We recognize the importance of keeping the cadet victim informed, as well as the broader issue of providing feedback to the Cadet Wing in general concerning the outcome of sexual assault cases and disposition of the offender, since the lack of this information may contribute to rumors and often results in inaccurate speculation. In the past, such feedback has been inhibited by Privacy Act concerns. We are taking a hard look at this area, to find ways of providing more complete feedback while respecting legitimate privacy interests.

Question 7: When a cadet is raped or sexually assaulted, in many cases, alcohol is involved. While it is well known that cadets are not permitted to drink, it appears that the consumption of alcohol is common practice. What is the Academy doing to discourage underage drinking?

Answer: Cadet Wing Instructions prohibit cadets from consuming alcohol on the Academy reservation, and from underage drinking anywhere (upper class cadets of legal age may drink responsibly when off the Academy). The "Street Smarts" training given to entering Fourth Class cadets address the significance of alcohol as a contributing factor in sexual assault cases. Nevertheless, it is clear that some cadets have not been adhering to the rules on alcohol consumption. For this reason, we have directed in the Agenda for Change that any cadet found to have provided, purchased for, or given alcohol to an underage cadet will be disenrolled immediately. In addition, the planned increase in after-hours patrols of the dorms and cadet area should help in deterring unauthorized alcohol use.

Question 8: Some former cadets who had been raped or sexually assaulted had expressed an interest in returning to the Academy. Would the Academy consider readmitting these cadets?

Answer: The Academy would consider requests of cadets who desire to return to the Academy on a case-by-case basis. In addition, in some cases, cadet victims of sexual assaults have been allowed to leave the Academy on a "turnback," which would allow them to return to the Academy provided they remain otherwise qualified.

In reference to Question 9, the Air Force General Counsel's Working Group currently studying Sexual Assault issues at the Air Force Academy has taken the General Accounting Office's findings and recommendations into account and is examining the extent to which they remain relevant to the situation at the Academy today.

As you know, we are engaged in a continuing, comprehensive review of these and other issues at the Academy. The Agenda for Change addresses many of these issues, including the cadet hierarchy relationships between the upper and lower classes, the way we select, train, and organize the professional staff to ensure we provide the best available supervision and mentoring, and how we administer cadet discipline to ensure we do not create obstacles to the reporting of crimes. We are also charging our Academy leadership to monitor more closely the relations between male and female cadets.

In addition, we are reviewing the investigative process to ensure we provide the full protection of the military justice system to victims as well as those accused. We are evaluating the awareness training, medical care, counseling services, legal consultation, victim advocacy, and spiritual consultation we provide to victims to ensure they receive support throughout the recovery and judicial process, and to all cadets as a deterrent to sexual assault. Finally, we have

made it clear to the cadets that all perpetrators, those who fail to act to prevent assaults, those who knowingly protect perpetrators after the fact, and those who would shun or harass anyone with the courage to come forward and report those criminals will be brought to justice and disciplined appropriately. As our review continues, we will take such additional steps as we determine to be necessary and appropriate.

We trust this information is helpful and look forward to continued cooperation as we move forward to resolve the current issues to ensure the Academy is a safe, secure environment for cadets who will be trained to become the Air Force's future leaders.

Sincerely,

James G. Roche
Secretary of the Air Force

Senator ALLARD. As was mentioned by the Chairman, who is now with the committee, and you know we all have something at stake here. Members of Congress do make nominations to the Air Force Academy, and we frequently promote the Academies in general as a good education and a wonderful opportunity for young people who measure up. It's vitally important we have a system in place where they are comfortable, and there will be some justice if there is a situation where a victim experiences rape or incest.

The integrity of the system is at stake and I think this is a really important time in the life of the Academies, particularly the Air Force Academy. Thank you for your interest, and we will be continuing to be watching over these as you move forward in your investigation.

Secretary ROCHE. Absolutely. We are totally transparent to you. I think you know General Jumper is en route flying out there now. He will be speaking to the cadets. He will also be speaking to some of our enlisted there. We have had one polling of the senior enlisted. We are trying to touch as many of those bases as we possibly can. A thing that's scary is that we are talking about young people who come 2 months from now, will graduate and some of them may face war within 12 months. I don't want them growing up in a war, Senator. I want them grown up when they go out of the Academy and I don't want them to think that they can get away with this, so there is something else they can get away with later on.

These are aspiring officers in whom we all place special trust and confidence. Once upon a time, their commissioning certificates referred to them as officers and gentlemen. They have special obligations. They cannot escape now and all of a sudden become responsible in the future.

Senator ALLARD. There is this loyalty to the squadron. The loyalty needs to start with the perpetrator of the act, and if he is going to be a loyal member of that squadron, he should not have done what he did and shouldn't come back later on in the squadron where he says you are the one that is the problem.

Secretary ROCHE. These young people need to know their peer group is the men and women of the Armed Services. Right now

some of them are shaming the Air Force, but they are also shaming any member of the Armed Forces.

Senator ALLARD. Thank you, Mr. Chairman.

Chairman WARNER [presiding]. Thank you for an excellent line of questions, and again I commend you for your work on this issue. Also, another member of our committee who has been very active and that is our next questioner, Senator Nelson. I wonder if you would indulge the chair for one question as I have been involved in this. I think we better employ language that is clearly understandable by a generation, an age younger than we or maybe in my case a generation, but zero tolerance is understood. I think that the importance of each of the Service Secretaries indicate that in their analysis and factions that they take with respect to their Academies the policy of zero tolerance would be very much a part of the understanding. Is that correct?

Secretary ROCHE. Senator, I dread ever to disagree with you. Zero tolerance to me I don't think captures the specifics that these young men especially need to know. Zero tolerance says you cannot perform, and we will not condone, a sexual assault on a victim, another cadet. We want to go further, Senator, and I think you agree.

Not only is that not tolerated, if they know of one of their own in their group, they have an obligation to go after that person. They have an obligation to stop these things from happening, and especially they have an obligation never to harass or shun a cadet who had the courage to come forward.

Chairman WARNER. It can be broadened to that. But I think we have to employ standards that are understood by this generation. I think the zero tolerance does send some message. Secretary Johnson, your view?

Secretary JOHNSON. Yes, sir. I certainly agree. The code says we will not tolerate them among us. That's certainly what we are talking about.

Secretary WHITE. We agree as well. We start the education process and understanding of that policy the day they come to the Academy.

Chairman WARNER. In the letter we specifically asked our former colleague on the committee who is now in charge of personnel in the Department of Defense that each of the Academies should review this situation, and the Air Force can ascertain to the extent that there is any presence of allegation within those Academies. I will close out on that and now turn to my colleague, who has raised that with the committee of the other Academies.

Senator BILL NELSON. That's exactly right. I have had complaints from the Air Force Academy. One woman, who was raped at the Air Force Academy while she was a freshman, learned that another woman had been raped by the same man, a fellow cadet 2 weeks earlier. They reported the crimes to the office of special investigations, but the male cadet was never charged. One woman left the Academy. The other is still a cadet.

In another complaint, a Floridian, a woman at West Point assaulted in her dorm room by another cadet, was urged not to make an issue out of the attack and eventually, separated from the Academy. Now, given these complaints, and I certainly hope Secretary Johnson that this doesn't get to your Academy, but given these

complaints and a number of others that have been reported in the media, I want to know how many complaints of sexual assault or rape have you received in the past 5 years and how many times have you pursued criminal charges against the alleged rapists?

Secretary ROCHE. We are assembling those data for the Air Force at this time. We had a hotline that picked up 98 calls. We have had 54 major investigations. We have only had one, possibly two formal court martials. We have had a number of dismissals because while you cannot prove the elements of their defense, you have enough to say there is violation of the Academy regulations, and therefore dismissing the individual. I would encourage you Senator, if you could, if they would have the courage to contact us or contact your office and allow your office to tell us their names so we can contact them. The privacy rights are such that we cannot ask any of them unless they come forward to us.

Senator BILL NELSON. If after investigation of the facts if you determine that a crime had been committed, would you turn that over to the appropriate criminal authorities?

Secretary ROCHE. Absolutely. One of the things that the inspector general's work will do that Senator Warner was referring to is to look at these cases to see whether due process was followed. If not, or if it warranted reopening, then that was something we could do with uniform code. We would, just as we are now having some young women come forward who had previously not come forward. We will put that into the chain of command into the office of special investigations and follow through with it.

We have done things for instance that I know won't surprise you. We have had an incident of a cadet in a community do something rather heinous. The district attorney decided that it wasn't a big enough deal to him, refused to prosecute it. We prosecuted it and he is in the slammer now.

Senator BILL NELSON. Secretary White.

Secretary WHITE. We have prosecuted and taken cases to court martial in the past. We will provide details for the 5-year period that you requested. It is a critical issue for us. It has been for a long time. Women have been at West Point since 1976. I think, as Secretary Roche has talked about here, the point is to establish a climate that makes people safe about reporting these things, and then take action appropriate with the offense. We will provide you that detail. We consider it very important. We are looking very closely at the situation at the Air Force Academy.

[The information referred to follows:]

The United States Military Academy (USMA) has had five allegations of rape: one in 1998; one in 1999; one in 2000; one in 2001; and one in 2002. Charges were preferred in two of these cases. In the 1998 case, the investigation determined that the sex was consensual and both cadets graduated. In both the 1999 and 2000 cases, the accused cadets resigned in lieu of court-martial and received other than honorable discharges. In both cases, the victims recommended acceptance of the resignation in lieu of court-martial.

It is important to note that the Department of the Army provides oversight for this. In the 2001 case, there was insufficient evidence to support the allegation to go to court-martial. However, the cadet was found to have violated other USMA regulations and resigned. In the 2002 case, DNA evidence did not substantiate the allegation and both cadets graduated.

Senator BILL NELSON. Of the victims who left, will you provide them with an opportunity to serve in the military?

Secretary ROCHE. Depends on the circumstances, sir. I would not want to make a blanket statement there. I know that some of them, for instance, loved the Air Force enough, and I'm surprised at this level of courage that they left the Academy, gone to university, and joined the ROTC program. We have known that, and we have welcomed them.

Secretary WHITE. I would, too, on a case-by-case basis, certainly.

Senator BILL NELSON. You have spoken earlier of a cadet problem. Is this an officer leadership problem?

Secretary ROCHE. As I noted, it's always both. These are adults, and it is easy for those adults to try and put responsibility for their actions someplace else. They are the ones who committed it. There is a leadership problem. I believe we the corporate Air Force have failed the Academy. This is not an issue at the Academy. When we allowed budget reasons and shortages of officer reasons to not, for instance, at the Air Force Academy there are very few pilots for these squadron officers, battle managers, because they are so desperately needed in the field. We have to think was that really smart? We gave up 1 year of advanced education for counseling. That clearly was not smart.

We did not make good use of our superlative noncommissioned officers and put them in the chain of command so that they could have helped this problem. That was not smart. That's not the fault of the people there. It's my predecessor and his predecessor as well as General Jumper's predecessor and his predecessor. It's a corporate responsibility for that.

Senator BILL NELSON. At the end of the day, we want to make sure that both your investigations hold someone responsible and accountable, which is the appropriate way in the military. I have been burned a little bit recently on this. Senator Pat Roberts and I have been involved in the Scott Speicher case and we have seen how everything has been so mushy over the last 12 years with mistakes being made and no one being held accountable. Now we have every reason. I personally think he is likely to be alive, that we have left a downed pilot for 12 years, and that no one has had to step forward with accountability. I do not want to see that in this case as well.

Secretary ROCHE. Senator, if I may, sir, where accountability is warranted, it will be there. I have had no problem removing general officers from jobs. I have had no problem holding people accountable, but when you really get into this particular case, the accountability goes broad. If it has to be somewhere, it's with General Jumper and me.

Secretary WHITE. The chain of command is responsible for this, and I as the Secretary am responsible for the department. West Point is a national treasure. We intend to keep it that way.

Senator BILL NELSON. Thank you, Mr. Chairman. Thank you for your willingness to jump into this with all fours.

Chairman WARNER. I also wish to commend you for your work on Commander Speicher. I know that you had offered and wanted to accompany Senator Levin and I on our recent trip. That was not possible given the size of the aircraft. I know your desire to pursue that case. I think Senator Roberts at each stop was able to invoke not only your intense feelings on that case, but his. I thank you for

bringing it up. I hope you continue to bring it up until we have some resolution of that tragic saga. We had excellent patience exercised by Senator Ben Nelson. Senator?

Senator BEN NELSON. Thank you, Mr. Chairman. Over the last several weeks, there have been a number of news articles about the hardships that military personnel both active and Reserve are facing because of deployments to support several contingency operations and some of these hardships include possible bankruptcy, but also parenting issues when both parents or single parents are deployed, effects in income for reservists ordered to active duty where they are paid far less than they are paid and compensated in their civilian jobs, first responders ordered to active duty leaving their cities and neighborhoods without their services in the event of a terrorist attack on the homeland.

As I ask each of you, I would like to have each of you respond. Does your Service have policies in place to prevent wherever possible, for example, both parents from being sent to a combat zone at the same time?

Secretary WHITE. I don't think we have a specific policy against that particular issue. We require single parents or families where both parents are in the military to provide a family care plan that's reviewed by the chain of command to make sure when they deploy that the children are adequately provided for. But I will have to get back to you for the record about the specifics of dual soldier families, and if there are any limitations on it or comments on it.

[The information referred to follows:]

There are no specific DOD policies that preclude the assignment or deployment of multiple family members to designated hostile-fire/imminent-danger areas or combat zones at the same time. This includes both a single parent and members of a dual-military couple with family members. However, DOD policy does exist which speaks to the concurrent assignment of multiple family members to the same unit or ship. The policy provides for reassignment of all but one member to a different unit or ship. Approval of such requests will be based on military requirements. The Army defines a unit for this purpose as a battalion, squadron, or element with less than 500 authorized Army personnel. Army implements DOD policy without change.

Understanding that plans must be made to ensure family members are properly and adequately cared for when the soldier is deployed or otherwise not available, current Army policy requires that dual-military couples with family members have an approved Family Care Plan (FCP) on file. Soldiers unable or unwilling to provide an adequate FCP are ineligible for deployment. Soldiers without approved plans may be considered for separation.

As a matter of policy, all similarly qualified service members must share assignments or deployments in hostile-fire/imminent-danger or combat zones equitably. However, provisions exist for consideration of combat deferment or exemption for service members or families experiencing severe humanitarian or compassionate problems. Our soldiers voluntarily entered the profession of arms with the understanding they would be subject to worldwide assignments to include being placed in harms way. On balance, they accept these policies and do not wish to be restricted from performing their duties along with their fellow soldiers.

Secretary JOHNSON. We also have no policy that specifically prohibits it, but we do require, as Secretary White talked about, for them to have a plan.

Senator BEN NELSON. In the event that they are both deployed?

Secretary JOHNSON. That they are both deployed.

Senator BEN NELSON. That works for deployment. But I think we are worried about losing the same parents in the same combat zone.

Secretary JOHNSON. We understand that. Most often their larger family takes care of the children. On the other hand, it would be incorrect to say that an officer couldn't serve. We have to be careful to allow them to serve their country while serving their family also.

Senator BEN NELSON. I understand. We are trying to narrow it down to a combat zone, as opposed to service.

Secretary ROCHE. Again, I would have to support the Secretary of the Navy. We would not want to say that a condition of officership or enlistmentship is affected by result of your majority. Support groups are maintained. I do not know of any cases where we would have a married couple where we would have a same flight over a same combat zone at the same time.

Senator BEN NELSON. Do you have any screening system that would identify firefighters, police officers, medical personnel, and other first responders to determine whether they may be needed more in their local community because of the interest in hometown security and the homeland security effort?

Secretary ROCHE. I love this one, sir. We, in fact, look for those specific specialties because we are in such short demand of them, and we are in such short demand because we are protecting so many bases here plus new bases overseas that, thanks to my colleague, Secretary White, we are renting close to 8,000 Army guardsmen to protect Air Force bases because we do not have the force. We have exhausted the Reserve Force to be able to have the force protection at the bases here and overseas at the same time.

The specialties you brought up we are very much in need of and, yes, every now and then it's a shock to realize how many members of police departments and fire departments of small American towns are now on active duty, but they have been part of our Reserve and we sure needed it.

Secretary WHITE. I would agree and say the same thing. If you look at Military Police (MP) units, most of them are in law enforcement in their private communities and we have activated just about every MP unit in the stretcher right now: both Guard and Reserve. The Reserve side of this is that in States where units have been activated that have specific capabilities that the State would like to use under State control for emergency purposes, the Adjutants General (AG) of the States have contact with the surrounding States and they swap out capabilities to cover when a unit is mobilized, but that doesn't get exactly what you asked.

Senator BEN NELSON. Over the years, they have had relationships with employment groups. They work closely with employers and we have a good partnership. Local units look at the things we are talking about, but yet as the other two Secretaries have mentioned, we go after some of the people that are also needed in our great Nation at home.

That's reminiscent changing the words to the song "Over There." So I would hope that you might take a look at that. I understand the importance of having the reservists and the Guard serve and be available and be deployed. Also, I think we all are aware of the importance of what effect it has over here when they go over there.

My final question is: what systems do you have in place to make sure that your mobilization is fair? For example, that some individuals are not ordered to active duty for a second time unless abso-

lutely necessary or kept on active duty longer than they have been led to believe they would be on active duty, while others are not activated? I understand that there are different skills or different service requirements and therefore that will mitigate, but is there a system in place to apply fairness where possible?

Secretary WHITE. We work this very carefully. In conjunction, on the Guard side with the State adjutant general obviously, there have been cases, and we have not had to mobilize anyone for more than a 1-year period. That's one of the reasons we are helping out the Air Force on-base security is they would have had to go into a second year of mobilization. But even having said that, 18 months into the global war on terrorism, we are so short of MPs that we have had to remobilize a small group of people who in fact were mobilized September 11, 2001 to September 11, 2002. After the current situation we have remobilized, but we worked very hard in the Guard and Reserve oversight process to make sure it's fair and the burden is kept as reasonable as we can.

Secretary JOHNSON. We work on the burden, but you would be proud of the number of volunteers who come forward and want to serve. I would be hard pressed to give a percent, but I suspect it's a majority.

Senator BEN NELSON. I wouldn't in any way want to suggest that you wouldn't have the loyalty of these men and women. It's a matter of certain hardships and/or equity that plays a role and you never want to under sell the importance of those who volunteer because their particular circumstances may permit them to do that.

Secretary ROCHE. Same thing. As of today, we have over 1,700 volunteers. Easier for us depending on how the airlines are going. We mobilize by experiences, and I think quite frankly we mobilize for our needs in combat and expect that the Air National Guard and Reserves will try to handle this particular need of the individual. The Air National Guard has been in this business for a long time. They have been in Operation Northern Watch, Operation Southern Watch, and Operation Enduring Freedom. They have been part and parcel. You cannot tell that this is a guard craft or active craft unless you look at the tail number. They have a personnel system that gets what we need on the spot. We do not try to figure it out. It just works.

Senator BEN NELSON. My time is up. Thank you very much. I appreciate it.

Senator WARNER. Senator Clinton.

Senator CLINTON. Thank you, Mr. Chairman. I want to thank you and Senator Allard for raising the issues of discipline and behavior at the Academies. I appreciate the addressing of this very crucial issue that concerns many of us, not only those of us here on the dais, but people around the country.

Chairman WARNER. Senator, you have spoken to me on several occasions about your concerns on this case.

Senator CLINTON. I know in the great scheme of things where we have 200,000 of our men and women on the knife's edge going into harm's way, some may wonder why we are raising this, but indeed I think it demonstrates the strength of our system and the commitment to our overriding values. I am very proud that it has been raised and followed through in such a professional manner.

I also want to express my appreciation to the Secretaries for their response to the question that the chairman asked toward the beginning of the hearing concerning General Shinseki's testimony before us a week or so ago. I understand completely that we are talking unpredictable, in the words of Secretary Rumsfeld, unknowable factors perhaps. But I think that the manner in which you responded to that question and referred to General Shinseki's personal service with a comparable set of circumstances was very welcomed. I, for one, appreciate it and I think that the range that we are attempting to understand Senator Levin has consistently questioned every witness about is an important one for us to continue to probe. I thank you for the way you have responded to that inquiry.

I have a series of questions. I will submit them to the record. With respect to a question, Secretary Johnson, about Coast Guard deployments, I will be submitting to the record, committing to the record a letter that I'm sending to you with respect to more information about the call up of Coast Guard ships.

[The information referred to follows:]

March 6, 2003

The Honorable Hansford T. Johnson
Acting Secretary
United States Navy
The Pentagon
Washington, D.C. 20350

Dear Mr. Secretary:

I am writing to seek further information about the call up of United States Coast Guard ships for deployment overseas and its impact on homeland security.

In late January, the Pentagon announced that it was sending eight U.S. Coast Guard patrol boats and several port security units to the Persian Gulf. At a Senate Armed Services Committee hearing last week, Admiral Vernon Clark, Chief of Naval Operations informed me that Coast Guard cutters have been periodically deployed with Navy carrier groups to ensure their readiness to work with Navy ships in times of crisis. However, newspaper reports have indicated that this is the first deployment of Coast Guard patrol boats, which are used to patrol shallow water, since the Vietnam War. Indeed, one news report indicates that the Coast Guard has sent one-fourth of its patrol boat fleet from the mid-Atlantic and New England to the Gulf.

As you know, in New York and other coastal states, we count on the Coast Guard to guard our ports against terrorist threats, and to provide assistance and leadership in responding to emergencies. During the recent barge explosion at a Staten Island fuel depot, the Coast Guard was the first responders on the scene.

I would appreciate information on how many current Coast Guard cutters, including patrol boats, are currently deployed with the U.S. Navy. In addition, I would also appreciate responses to the following questions:

- What criteria did you use to determine that it was necessary to deploy the Coast Guard cutters and other Coast Guard vessels?
- How long do you expect the Coast Guard cutters to be deployed overseas?
- What missions did these cutters perform for the Coast Guard and what provisions will be made to replace their functions?

I look forward to hearing from you soon. Thank you for your consideration.

Sincerely yours,

Hillary Rodham Clinton

Hillary Rodham Clinton

Last week, Admiral Clark informed me that the Coast Guard cutters have been periodically deployed with Navy carrier groups to ensure their readiness to work with Navy ships in times of crisis. However, according to a Coast Guard spokesman, this is the first time that Coast Guard combatant ships have been deployed in support of a national contingency in 30 years.

Indeed, one news report indicates that the Coast Guard has sent one fourth of its fleet to the Gulf. We, in New York and other coastal states, particularly along the east coast, count on the Coast Guard to be part of our homeland security to guard our ports against potential terrorist threats, as well as to provide assistance and leadership in responding to emergencies such as the recent barge explosion on Staten Island, where the Coast Guard was the first responder on the scene and helped to contain that accident.

So I will be asking for additional information for how many additional Coast Guard cutters, including patrol boats, are currently deployed, the criteria that are used to determine deployment, how long we expect to see them deployed overseas, the missions that they are currently performing, and any provisions or planning with respect to replacing their necessary functions into the future. Obviously as we are looking at the multiple challenges that we are confronting, it's imperative that we think ahead, and I do not know that deploying Coast Guard cutters in times of heightened alert will always be a very good idea. It may be necessary now, but we may have to look for alternatives, so I will look forward to receiving those answers to those questions.

Secretary Roche, I'm deeply interested in the work that is done at the Air Force research lab in Rome. Have you had a chance to visit the lab? I would love to, however, be there with you when and if you do?

Secretary ROCHE. I'd be delighted. That's the sort of stuff if you know my past that turns me on. [Laughter.]

Senator CLINTON. I wasn't inviting you to be turned on. I'm only kidding. I couldn't resist. [Laughter.]

Secretary ROCHE. I'm an electronics and research man.

Senator CLINTON. I know. Just kidding.

Secretary ROCHE. It's a very interesting place, and it does great work.

Senator CLINTON. It would be a great pleasure. Obviously, the work being done to develop cyber security technologies are one of the most important investments we need to be making with respect to our cyber infrastructure and the protective technology that is required, so I hope that we will have a chance to do that sooner instead of later.

Finally, I would just echo the questions and concerns of my colleague, Senator Ben Nelson, about first responders. This is another one of those issues that has to be taken into account as we plan for the future. I know Secretary Rumsfeld has apparently expressed concern about having reliance that our forces have on reservists and guardsmen for the kind of deployment that we are now experiencing. Of course in many communities in our country, we are deeply dependent upon them, our firehouses, police stations, and emergency rooms. So I think we are going to have to consider how to better deal with demands on both ends of our security spectrum, both here at home and overseas, when we look at the Reserve components.

Mr. Chairman, the Secretaries have been very helpful in responding to concerns many of us have about the questions that Senator Nelson raised, possibly married couples with children both serving in the same combat area. If there is any kind of formal statement or policy that has been adopted on this, we might want to get that just so that we all know if there are individual service policies, we need them; but if there is something that is being developed across the board, it would be very useful because many of us are receiving a lot of questions from not only constituents but from mayors, county executives, and others who have been facing these tremendous fiscal crises that they are currently undergoing

and have to pay their reservists costs. We are trying to get our arms around this. I would look forward to receiving that.

[The information referred to follows:]

Secretary JOHNSON. Spouse collocation is a key distribution goal. To the greatest extent possible, we assign one member to a shore billet, or otherwise non-deployable activity, while the spouse is fulfilling a sea-going or operational tour.

Navy makes every effort to avoid concurrent assignment of dual Navy couples to deployable units. We also strive to avoid these operational assignment concerns for personnel married to other Service personnel or Reserve component members. However, given the expeditionary nature of naval service, there remains the potential for both members of a dual military couple to be simultaneously deployed.

Dual Navy couples, and Navy members married to members of the other Services, are required to establish formal contingency arrangements to provide for the needs of children (and other dependent family members) in the event of conflicting operational demands. Commanding officers are responsible for ensuring compliance with program requirements and maintaining documentation of these plans at the local command.

Requests to be excused from deployment are submitted to a member's immediate commander and forwarded for disposition through the operational chain of command. If requests cannot be resolved at the local level, the commander may, if deemed appropriate, refer the request to headquarters level as part of an administrative separation package.

Chairman WARNER. Thank you Senator. That will be done.

Secretary JOHNSON. We will provide all the information you asked for. The partnership between the Navy and the Coast Guard has always been strong. It's even stronger now. There are some things that military people cannot do where Coast Guard members have that authority. We will provide information on the ships that go forward, but that partnership is tremendous forward and in the homeland. We are supporting the Coast Guard here very much and we will provide the information to you.

[The information referred to follows:]

The number of Coast Guard Cutters deploying to the Persian Gulf are:

- 378-foot high endurance cutters
  - USCGC *Boutwell* (WHEC 719)—homeport: Alameda, CA
  - USCGC *Dallas* (WHEC 716)—homeport: North Charleston, SC
- 225-foot seagoing buoy tender
  - USCGC *Walnut* (WLB 205)—homeport: Honolulu, HI
- 110-foot patrol boats
  - USCGC *Wrangell* (WPB 1332)—home port: South Portland, ME
  - USCGC *Adak* (WPB 1333)—homeport: Sandy Hook, NJ
  - USCGC *Aquidneck* (WPB 1309)—home port: Atlantic Beach, NC
  - USCGC *Baranof* (WPB 1318)—homeport: Miami, FL
  - USCGC *Grand Isle* (WPB 1338)—homeport: Gloucester, MA
  - USCGC *Bainbridge Island* (WPB 1343)—home port: Sandy Hook, NJ
  - USCGC *Pea Island* (WPB1347)—home port: St. Petersburg, FL
  - USCGC *Knight Island* (WPB 1348)—homeport: St. Petersburg, FL

Chairman WARNER. Secretary Johnson, you raised a very important point about the statutory provisions in laws that enable the Coast Guard to do certain actions in reference to boarding that is not available to our forces. Maybe it ties into the review the Secretary is undertaking. But I think in these times when we are stretched so thinly and if it impacts on the Coast Guard to cover so many areas, that you might revisit that legislation to determine whether or not some authority, albeit maybe temporary, would enable the forces to maintain this task.

Secretary JOHNSON. In hostile situations, we do not have a problem. But in nonhostile situations, we do. But we will look at that.

Chairman WARNER. I do not want to have the Coast Guard impacted in the ability to carry out so many of its functions because of the necessity to have Coast Guard personnel or a ship, as the case may be, present. Thank you very much.

The chair is going to remain here for a number of wrap-up questions, but Senator Levin has commitments. I will yield to him and Senator Allard, then do the wrap-up.

Senator LEVIN. Thank you, Mr. Chairman, as always, for your courtesy. First on the end strength issue. You commented on this before, but when I asked the question in a little different way. Given the fact that our forces are so widely-deployed in such great numbers, given the fact that we have such huge demand and stress on our Guard and Reserve Forces, do you believe it is likely that you will be asking for an increase in the end strength of your Army and your Navy? Is it likely you'll be asking for an increase?

Secretary WHITE. Senator, we have discussed this before. The Army has had an active duty end strength Guard plus Reserve of 510,000 for 18 months. While there are certainly efficiencies that we can make within the 480,000 end strength cap to get military people doing military jobs and freeing up those spaces, if the operational tempo stays where it is in Operations Noble Eagle and Enduring Freedom going forward, we are over strength right now. We have Stop-Lossed 3,000 people. Our retention numbers are better than we had expected so we are at about 489,000 as it is. I think it's going to be a prime topic of discussion.

Senator LEVIN. Is it likely you, Secretary Johnson, will be asking for increase in end strength?

Secretary JOHNSON. Not likely. We are 2 percent over strength now and Marine Corps has a Stop Loss which puts them over also.

Secretary ROCHE. We are in a situation where we are over the 2 percent right now. We have found 2,000 airmen not working for the Air Force. We are trying to bring 6,000 of them back in. I agree with Secretary Rumsfeld. 600 some communicators in the Pentagon easily handled by a contract out, which we are doing. When we finish with that, we will come back. It's distorted now, Senator Levin, because pilot retention is way up. Recruiting—we have recruited this year—finished early. We see that happening and re-enlistments are happening as well. It's what's distorted. As of right now, we do not see asking for end strength increase.

Senator LEVIN. Secretary White, are you aware of proposals to merge the staffs at the Office of the Secretary of Defense and the JCS?

Secretary WHITE. It was brought up in this hearing when you had the chiefs here. I had not seen the paper. I have heard because it has been discussed here in committee and discussed a little bit over in the department.

Senator LEVIN. Have you been briefed on any such proposal?

Secretary WHITE. No.

Secretary JOHNSON. I have read about it. I have not been briefed.

Secretary ROCHE. No, sir.

Chairman WARNER. Senator, such an important question. Do you have any basis, in fact, to say there is any official circulation of a document and it leads to the question whether or not the Secretaries, who in my judgment are an integral part of any formal policy

should be involved? I do not know of an official document and I do not know if the Secretary has omitted the process.

Senator LEVIN. The question is whether there is a draft floating around which our Secretaries have been briefed about, or at least the idea has been briefed to them. The answer is no.

Secretary ROCHE. I know of no draft and have not been briefed.

Senator LEVIN. We have all kinds of reasons to believe there are proposals floating around for both areas of the length of service of the chiefs and in terms of merger of the staffs. I believe those proposals are floating around the building, but my question is whether they have been briefed on it. Their answer was no.

Secretary ROCHE. Sir, you raised a new one, length of service of the chief. We have had a dialogue with our boss and he has listened to our views.

Senator LEVIN. There has been dialogue?

Secretary ROCHE. Length of service of chief, combatant commanders, Chairman and Joint Chairman.

Secretary JOHNSON. Absolutely sir.

Secretary WHITE. Yes.

Senator LEVIN. I did not mean to throw that curve ball. I appreciate your catching that. Two different subjects we are interested in. One of them you said there have been discussions, one of them there have not been, and that's acceptable to me.

Secretary Roche, on the tanker issue, has the decision been made about tanker leasing?

Secretary ROCHE. No, sir.

Senator LEVIN. Is there anything in this budget, any item that presumes the outcome of such a decision?

Secretary ROCHE. I'm keeping the word that I gave you last year. In the budget is plan A, which is that the lease will not occur and we have to continue to buy tankers later in the decade. So therefore we could not ask Secretary Rumsfeld to approve our budget if in fact that made conditions for him approving the lease.

It assumes a negative outcome that says we will buy later in the decade because we could not ask him to make a decision on the budget without having made a decision on resources. The office of the Secretary of Defense has been working on this for some time. We are hoping it will happen shortly. I can't tell you, Senator. I know Secretary Rumsfeld is getting frustrated that gestation period for this is growing. We are about elephant size now.

Senator LEVIN. He doesn't get easily frustrated so something must be going on. Thank you all.

Chairman WARNER. The chair observes the Senator from Georgia has arrived, if you would like to be recognized.

Senator CHAMBLISS. Sorry I'm running behind, gentlemen. It's one of those days full of hearings. I appreciate your conversation yesterday, Secretary Roche. We look forward to continuing to work on that issue and as Chairman of the Personnel Subcommittee, I look forward to working closely with you to make sure all of our men and women are well. I know that's your intention.

Secretary Johnson, I have a question for you with respect to the C–130J multiyear program. We worked awfully hard last year to include the language in last year's Defense Authorization bill for multiyear procurement of the C–130J, both the Air Force and the

Marine Corps. I know that work is being done to get the planes on contract, and most of the information is with the Comptroller's office. However, I understand the Navy has not provided all the paperwork that is needed and this is holding up the contract. Can you tell me when the Navy will finish submitting the paperwork so we can move that contract forward?

Secretary JOHNSON. We are participating with the Air Force on the C–130J.

Senator CHAMBLISS. It's my understanding that paperwork has been there for sometime and hasn't come out of the Navy. It's been sitting there for several weeks. If you can follow up on that, I'd appreciate it.

Secretary JOHNSON. I will follow up.

[The information referred to follows:]

The Navy completed the required paperwork for the C–130J Multi-Year Program and the contract was signed on March 14, 2003.

Senator CHAMBLISS. Thank you. That's all I have, Mr. Chairman.

Senator ALLARD. Thank you, Mr. Chairman. I'm pleased with the way the missile defense program is moving along, and the question I have of the Secretaries is this. What are you doing to assure that missile defense is going to be a core competency in your Service?

Secretary WHITE. Senator, from the Army's perspective, it always has been and we will get back from the Missile Defense Agency control of the PAC–3 program which is critical to terminal phase defense. Our component command of STRATCOM is reestablishing Fort Greeley, where the test site will be, and of course, we also run the test range so we are very heavily involved in this. It's always been a core competency of the Army and I think will be an integral part of the defense.

Secretary JOHNSON. We have given use of the U.S.S. *Lake Erie* to the Missile Defense Agency to do their work on experimentation and so forth. We have identified five other ships and missile defense systems on board. We are working with the Missile Defense Agency to develop better missiles. We have the capability on the launch end, and we would like to have longer capability to get in the mid range. We are leaning toward a good partnership from our perspective.

Senator ALLARD. Secretary Johnson, I think in the test phase we have allocated money to the land-based and then also some to the Navy, too. I was thinking the number that we allocated to the Navy was more than what you just mentioned.

Secretary JOHNSON. 20 missiles. But five ships we are talking about here. One has a tracking capability. The others have vertical launch system capability and we have the 20 missiles allocated. We plan to develop better missiles.

Secretary ROCHE. Senator, the United States Air Force is heavily involved in this defense, but certainly from space and things like high and low, those problems. We work closely with the Missile Defense Agency on the airborne laser, very delicate project at Edwards Air Force base. It would be infrastructure for missile defense.

Senator ALLARD. Mr. Secretary, when I first came on to this committee, I had the opportunity to serve as Chairman of the Personnel Subcommittee. At that particular point in time, we were strug-

gling with how it is we were going to retain our specialty areas. My question is right now how are we doing at retaining individuals in these specialty areas? We put some provisions in that legislation so that there could be salary adjustments for people in the private sector. I'd like to hear from all three of the Secretaries on how they view our ability to retain and recruit individuals into various specialty areas that we were having difficulty a number of years back.

Secretary WHITE. As it stands right now, retention across the board and paid incentives that support specialty areas are in good shape. The question is will we be able to sustain that going forward.

Secretary JOHNSON. We in the Navy and Marine Corps are in outstanding shape. Marine Corps has always been able to retain as many as they wanted to. Now I have to worry about if there is a slot in the particular specialty the person wants to stay in. But we are able to do 90 percent of the ones who want to stay. We have to move a few to a different specialty.

In the Navy, we have been focusing on a more mature, older force. We have some 71 percent that are past the initial part in the Navy; we expect to drive that to 75. With that, of course, comes a difference in cost because they are more senior, but when you look at the requirement to train new people and the cycle, the additional cost to keep the more senior, more capable people is well worth it.

Secretary ROCHE. Senator, the help that Congress has given us is really a godsend. It's helped us to deal with navigators, battle managers, scientists, engineers that we are looking at so it has been really a help to us to be able to focus. There are still some specialties in demand. We are still behind in the pilots, but at least we are filling up the school.

Some of our specialties are clearly things like security forces, which there is an unexpected demand for. Some unique ones, like specialties who know hot to handle fuels become very critical folks. Rehooks, civil engineers are in great demand elsewhere. Another thing we try is to make education part of why you want to be in the Armed Forces, not just things like the college.

For the first time, we have had enlisted members at the Air Force Institute of Technology Air Force degrees, we have eight airmen and six marines. We have tailored the officer program much more with very good degrees that will help us and help them in later life, which gives them a reason to be part of us for a longer period of time.

Senator ALLARD. Secretary Roche, I have a question on our access to space which is essential to our military operations. The EELV program has been critical for assuring that we do have that access. Is the Air Force willing to commit to in the long term to having two service providers for EELV programs? There are some programs where we did not have duplication of effort and we have gotten into trouble. I'm concerned that if we end up with sole source here that if we discover a problem with one of these vehicles, we do not have back-up. This is survival. I'd like to hear your comments on this.

Secretary ROCHE. Sir, I had the pleasure of being on the staff of the Intelligence Committee. At the time, it was the sense of Con-

gress that we should make sure we had a back-up. I'm very mindful of that. We are convinced we need two different launch vehicles. Right now that's two launch providers.

Every now and then we think is there a sensible way we should reduce costs given that commercial demands do not appear. If you maintain two design teams and combine overhead functions, we are not there yet. It's clear we need two separate designs in case there is a class problem so we do not get caught.

Senator ALLARD. Mr. Chairman, I have one more question. This has to do with what is the Air Force doing to protect our space assets? Perhaps this is a question that cannot be answered. There may be some things that you can answer in this setting and in relation to that I'm concerned about our security as far as cyberspace is concerned as well. During these times of conflicts, I know there is an unprecedented amount of hits coming in to the Pentagon and various computer systems. So I'm interested in how you are addressing this issue. If you could deal with the space aspect and maybe all of you would be willing to respond to the cyberspace issue, I would appreciate it.

Secretary ROCHE. Senator, it would be very hard in open session to talk to you about the subject. I can say the following. I have been telling everyone that the space field is going to be something exciting in the future. People are going to start to play games. The game is going to be an interesting game, and they are going to start developing doctrine not unlike naval doctrine and air doctrine and the GPS jammer which we developed on our own, to see the fact that the jammer is on the market is really the first overt move for war and space.

It's intended to deny us of the use of space. This kind of a game is going to go on. Understanding what we might be able to do in other circumstances is clearly something I would be delighted to talk to you about in an appropriate setting.

Cyber is in many cases the same. We have been hit. Our tri-defense industry cycle company by company and tries to overload that company and put it out. That continues. Making sure firewalls work must go on, but it's something that's also been looked at as it should.

Secretary JOHNSON. We are working the second problem, all of us together.

Secretary WHITE. I would agree with that.

Senator ALLARD. Not only the companies, but Congress here. We had a day this month where we were completely overloaded, and it was an intention to try and make it difficult for our offices.

Secretary ROCHE. They smoked a server and put a server on fire when I got hit.

Senator ALLARD. Thank you very much.

Chairman WARNER. Thank you, Senator, especially for your help with the Armed Services and the Academies.

Chairman WARNER. Gentlemen, with regard to the proposals forwarded by the Secretary of Defense to Congress earlier this week, and the article in The Washington Post today, those proposals in large measure track the ones that were brought up to Congress late in the session last year. We simply were not given time, I think, to adequately review them, and to secure the measure of re-

lief that is necessary. But this engagement with the environmental community is something which frankly I regret.

I think all of us, whether we are environmentalists or otherwise, are concerned about the readiness of the men and women of the Armed Forces and their ability to carry out their assigned missions and that directly relates to the training that they receive. So it seems to me it's an all America question to strike a balance here.

I will read one quote of Michael Jansy, a senior policy analyst for the National Defense Council, charged that "this bill is a rollback of almost every major environmental law on the books." I have been around now a very long time, and I can see what is going on here. But I'm going to continue to work on this issue as I have in the years past to see whether we cannot get a realistic balance between what is needed by the military and no damage to the framework and environmental laws which recognize a struggle in Congress over many years.

My dearly departed friend, John Chafee, who I served with on the Environmental and Public Works Committee, who, as a matter of fact, recruited me to serve on that committee, and now I find myself as the senior Republican on that committee, with Senator Inhofe the current chairman of that committee. He is very active on that issue. Our distinguished colleague, Senator McCain, Chairman of the Commerce Committee, will have part of it, so the three committees that work together are trying to achieve a careful balance.

It's very important, however, that this hearing today reflect the positions of the three military departments on the whole with reference to what hierarchy will you assign to this issue, and the need for Congress to provide some remedies that you are able to continue that level of training that you think is essential. So we will start with you, Secretary White.

Secretary WHITE. Mr. Chairman, I think it's imperative that we have the ability to balance environmental protection of the lands that we occupy and train on with the requirements to train and sustain a ready force. We have traditionally been very good stewards of the environment, and I think our track record is excellent. It's not an issue as you would suggest as the article suggested that we want to roll back this legislation.

What we are seeking is the flexibility to be able to balance these requirements on a single piece of ground, and what we find is we are becoming more and more limited because the way the laws are interpreted in being able to strike that balance. So for us, it's tremendously important that this legislation be fast and that we have the opportunity to make that balance.

Chairman WARNER. The anecdotal story in this area, I remember 10 or 15 years ago that we had an issue before this committee that the Red-Cockaded Woodpecker was a magnificent bird and it was on an Army base. It was in the environmental community being challenged, and when we got into it we found that indeed the operation of the tanks and the artillery did take its toll on some of the birds, churned up the ground but finally, that case was resolved on the following: we found that the number of woodpeckers had tripled because that operation with the equipment and the training increased the food supply.

Just a little quick note. I have a constant battle within my own family. I have three wonderful children who really spent a lot of time in a serious way on this subject, so I have accountability myself. I want to probe this fully and get some relief. Secretary Johnson.

Secretary JOHNSON. Yes, sir. We work very hard in outreach. Last year, we brought the proposals to Congress at the last moment. This year, we have been able to continue the dialogue with the various committees and people who have answers. We have been able to work with the other agencies within government to gain support for the things we want to do and in some cases we want to do it for defense.

They would like to do it for the entire Nation, but there are different issues with economic exploitation from the defense. We feel very strongly about the Marine Mammal Protection Act, and have agreement with NOAA on that and of course the Endangered Species Act, we would like to do the integrated natural resource management plans, and those are two big ones.

Last year, you gave us the Migratory Bird Treaty Act that wasn't quite what we asked for, but we are going to try to work it in the context that you gave it to us working with the Department of the Interior before we come back and ask for help on that one.

Secretary ROCHE. Mr. Chairman, this is very important. If you are an endangered species, come to one of our ranges and bring all your critter relatives with you. We care about the environment. They flourish very nicely. The major issue is as Secretary White stated, Mr. Chairman; there are interpretations going on that could be a problem. Much of this legislation before you is to ask that Congress resolve these so we do not wind up in court with every single one of our ranges tied up in court cases.

We can get some resolution for those early. No one really wants to have any of our airplanes have to get a license for bird strikes, so many kills per day. That's sort of silly, but yet some could think of interpreting things that way. We do not mind when for instance one of our ranges has a certain type of antelope that's grazing. We just do not fly that day. We can live with the environment quite comfortably.

Chairman WARNER. Thank you. There is a quotation in The Washington Post article today attributed to the EPA, and it states as follows: "I do not believe that there is a training mission anywhere in the country that is being held up or not taking place because of environmental protection regulations." I would appreciate if each of you would provide for the record such instances where it is the judgment of the military departments that there have been clearly documented areas where the training has been impaired as a consequence of these interpretations that the Secretary alluded to and, in your own professional judgment, how that degrades readiness.

Secretary WHITE. Be happy to.

Secretary ROCHE. Delighted, sir.

Secretary JOHNSON. Yes, sir.

[The information referred to follows:]

Secretary WHITE. I believe Governor Whitman's comments were intended to address the Federal statutes under the Environmental Protection Agency's (EPA) pur-

view, so I will focus my comments on those laws. Nonetheless, I would like to point out that many of the environmentally based constraints on Army training stem from requirements of laws outside of EPA's purview, i.e., the Endangered Species Act (ESA) and mitigation measures imposed as a result of the National Environmental Policy Act process.

The Army's primary concern with statutes within the purview of the EPA are those of the expanding application of pollution control laws to live-fire training activities. The Army is currently litigating allegations that firing activities at Fort Richardson, Alaska, violate the Resource Conservation and Recovery Act (RCRA); the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA); and the Clean Water Act. Plaintiffs are seeking to halt live-fire training and require remediation of the Eagle River Flats impact area. This would dramatically impact the training of the 172nd Infantry Brigade, the largest infantry brigade in the Army. If the suit is successful, it would set a precedent that could subject live-fire training and testing at more than 400 Army operational ranges to permitting and remediation actions under these laws.

It is interesting to note that the expanded application of environmental laws to military ranges is not coming from regulatory agencies, but from citizens' suits seeking novel interpretations of these laws. The DOD has worked closely with the EPA to develop tailored and narrowly drafted legislative proposals that will clarify the applicability of both RCRA and CERCLA to our operational ranges. These proposals seek to codify the long-standing EPA policy, established by the Clinton administration, that firing ammunition on an operational range is not a trigger for cleanup requirements.

The EPA issued a series of administrative orders under the Safe Drinking Water Act that shut down artillery and mortar firing and pyrotechnics use at the Massachusetts Military Reservation (MMR). These actions significantly curtailed National Guard training at that installation. As a result, the Army has had to permanently displace this training to alternate locations. Units from the Massachusetts National Guard must travel over 400 miles to train at Fort Drum, New York. We continue to conduct some limited training at MMR under restrictions designed to protect the aquifer that underlies the installation. It is important to note that the legislative clarifications DOD is seeking would not have affected the outcome of this case or the authority of the EPA to take such an action under the Safe Drinking Water Act.

Secretary JOHNSON. The following are examples of where environmental protection regulations are impacting readiness:

- Due to the complexity of applying environmental laws to military activities, the Navy's premiere sonar system for detecting diesel submarines, operated by countries like North Korea, Iran, and China, currently operates under the restrictions of a court order limiting where and when the system can be used. This summer, the court will rule on future use of the system.
- During the last 6 years of Navy research on how to counter mines and detect submarines in shallow water, over 78 percent of the tests have been delayed, scaled back, or canceled due to the impact of environmental regulations.
- Lack of clarity in the definition of "harassment" in the Marine Mammal Protection Act is delaying the establishment of shallow water training ranges to prepare sailors to fight and win in the littorals, the Navy's most difficult battlefield.
- Navy's fleet exercises face severe limitations to avoid potential "harassment" of marine mammals.
    - Exercises to protect ships from submarines and mines in narrow, shallow straits, such as the Strait of Hormuz in the Persian Gulf, have been moved to less realistic conditions in deep water.
    - Some exercises forced to adopt aerial and other visual surveys for sea turtles and marine mammals can only be done in daylight. The mitigation denies the ability to train at night.
    - Environmental factors—including application of the vague definition of harassment—often conflict with the operational need for the training and increase the time away from home for sailors.
- There are 17 miles of beach at Camp Pendleton, California, but due to environmental restrictions and urban encroachment, only 1,500 meters is available to practice amphibious landings and movement from the beach using all Marine Corps combat vehicles. Even within this 1,500-meter beach, all military vehicles must stay on designated roads.
- Due to EPA-based restrictions in the Mariana Islands, this year's multi-national exercise Tandem Thrust will not include amphibious landings using air cushion landing craft—the best heavy-lift capability we have.

- Proposed critical habitat designation on military lands in Guam—for species not currently present, but which the Fish and Wildlife Service would like to introduce as a solution to special interest lawsuits—threaten to shift the core mission of these Government-owned lands from military readiness to one of environmental protection.

Secretary ROCHE. In terms of the affects to our readiness, realistic training is important to all Services and joint operations is and will continue to be a decisive advantage in future conflicts. Ensuring that the other Services have the resources necessary to train realistically is just as important to the Air Force as our own training.

The Air Force and John Peter Suarez, Assistant Administrator, Office of Enforcement and Compliance Assurance, U.S. Environmental Protection Agency, are in agreement that in its history, there is only a single instance when the EPA took an enforcement action that halted live-fire training at a range. The installation that was affected was the Massachusetts Military Reservation (MMR) on Cape Cod, Massachusetts. Live-fire training had to be shifted to another facility but some training was able to be continued such as small arms training, as well as other training without using explosives, propellants, and pyrotechnics.

Environmental plaintiffs have filed suit at Fort Richardson, Alaska, alleging violations of Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) and Alaska antipollution law applicable under Resource Conservation and Recovery Act (RCRA). If successful, they could potentially force remediation of the Eagle River Flats impact area and preclude live-fire training at the only mortar and artillery impact area at Fort Richardson thereby dramatically degrading readiness of the 172nd Infantry Brigade, the largest infantry brigade in the Army. It could also set a precedent fundamentally affecting military training and testing at virtually every test and training range.

The proposed Range Readiness Program Initiative (RRPI) legislation would codify and confirm the longstanding regulatory policy of EPA and every State concerning regulation of munitions use on operational ranges under RCRA and CERCLA. It would confirm that military munitions are subject to EPA's 1997 Military Munitions Rule while on range, and that cleanup of operational ranges is not required so long as material stays on the range. If such material moves off-range, it still must be addressed promptly under existing environmental laws. Moreover, if munitions constituents cause an imminent and substantial endangerment on range, EPA will retain its current authority to address it on-range under CERCLA section 106 (our legislation explicitly reaffirms EPA's section 106 authority).

The legislation similarly does not modify the overlapping protections of the Safe Drinking Water Act, NEPA, and the ESA against environmentally harmful activities at operational military bases. The legislation has no effect whatsoever on DOD's cleanup obligations under RCRA or CERCLA at Formerly Used Defense Sites, closed ranges, ranges that close in the future, or waste management practices involving munitions even on operational ranges (such as so-called Open Burning and Open Detonation (OB/OD) activities).

The Endangered Species Act provision would confirm the prior Administration's decision that an Integrated Natural Resources Management Plan (INRMP) may in appropriate circumstances obviate the need to designate critical habitat on military installations. The prior administration's decision that INRMPs may adequately provide for appropriate endangered species habitat management is being challenged in court by environmental groups, who cite Ninth Circuit case law suggesting that other habitat management programs provided an insufficient basis for the U.S. Fish and Wildlife Service to avoid designating critical habitat. These groups claim that no INRMP, regardless of how protective, can ever substitute for critical habitat designation. This legislation would confirm and insulate the U.S. Fish and Wildlife Service's policy from such challenges.

The Defense Department's proposal has vital implications for readiness. Absent this policy, courts, based on complaints filed by environmental litigants, compelled the U.S. Fish and Wildlife Service to re-evaluate "not prudent" findings for many critical habitat determinations, and as a result U.S. Fish and Wildlife Service proposed to designate over 50 percent of the 12,000-acre Marine Corps Air Station (MCAS) Miramar and over 56 percent of the 125,000-acre Marine Corps Base (MCB) Camp Pendleton as critical habitat. Without the legislation, the Air Force may face restrictions at Beale AFB, Travis AFB, and Andersen AFB as a result of proposals to designate critical habitat currently being evaluated. Unlike Sikes Act INRMPs, critical habitat designation can impose rigid limitations on military use of bases, denying commanders the flexibility to manage their lands for the benefit of both readiness and endangered species.

The Clean Air Act's "general conformity" requirement, applicable only to Federal agencies, has repeatedly threatened deployment of new weapons systems and base

closure/realignment despite the fact that relatively minor levels of emissions were involved.

- The planned realignment of F–14s from NAS Miramar to NAS Lemoore in California would only have been possible because of the fortuity that neighboring Castle Air Force Base in the same airshed had closed, thereby creating offsets.
- The same fortuity enabled the homebasing of new F/A–18 E/Fs at NAS Lemoore.
- The realignment of F/A–18 C/Ds from Cecil Field, Florida, to NAS Oceana in Virginia was made possible only by the fortuity that Virginia was in the midst of revising its Implementation Plan and was able to accommodate the new emissions. The Hampton Roads area in which Oceana is located will likely impose more stringent limits on ozone in the future, thus reducing the State's flexibility.

As these near misses demonstrate, under the existing requirement, there is limited flexibility to accommodate readiness needs, and DOD is barred from even beginning to take readiness actions until the requirement is satisfied.

Chairman WARNER. Now, homeland defense. When I visited with our troops in the Gulf region here recently with my distinguished good friends and colleagues, Senators Levin, Roberts, and Rockefeller, everywhere we went, we talked about homeland defense and I explained to them that the military's mission for homeland defense begins right where they are in the far-flung outposts across the world where these individuals in many cases are taking a lot of risks to perform their missions because to the extent we can intercept, curtail, reduce, capture, crush, or otherwise stop individuals and organizations' participation in worldwide terrorism, this lessening of the chance that it will be brought to the shores of the United States.

So I look at defense of homeland of the military as not just embracing our security here in the continental United States, but in every outpost throughout the world. I think it's important that this record reflect what each of your departments is doing in this area and the coordination efforts that are underway with the newly created Department of Homeland Defense. Start with you.

Secretary WHITE. Mr. Chairman, first of all, the homeland defense mission is always foremost for us. A lot of changes in the department, the standing up of a combatant commander, General Eberhart with NORTHCOM, we have headquarters in the Army that work directly with him as we do other combatant commanders around the world to ensure that we have force, responsive forces should the need arise to take care of that.

Second, we have invested a lot of money in antiterrorism force protection initiatives to better protect our installations to protect our people.

Third, we have done a lot of coordination with the National Guard so that if we take units that would be used in a first response and federalize them and deploy them someplace, the States have compacts in place with the surrounding States that can fill in those holes so that the local capability is not lost. So there are a whole series of initiatives ongoing within the overall envelope of homeland security. We are in much stronger position now than we were 18 months ago.

Chairman WARNER. Thank you, Mr. Secretary.

Secretary Johnson.

Secretary JOHNSON. My predecessor, Gordon England, put it very well when he talked about homeland defense. We want it to be an

away game, as you were explaining, to the troops overseas. We want to take the actual battles to the source and we support Northern Command as well as Secretary White has described.

We have a Marine and Navy component. The Marines stood up focused on these sort of activities, so we take it very seriously, our strong partnership not only with Northern Command, but homeland security and others associated.

Secretary ROCHE. Mr. Chairman, this is a big thing for us. With NORTHCOM and NORAD associated, we have netted all the radars inside the United States as compared to the case where we only worried about the periphery, so if we have a track of interest, we need to put fighters on it.

Depending on the threat level and where the President of the United States is, you know we have special things in place. We have AWACS, tankers, accounts for 20 bases, over 200 aircraft every day are tied up in this, and prepositioned C–130s to be able to move Marine and Army units. This is big to us. It's costly to us. It's wearing our planes out faster, but we have a very close relationship with NORTHCOM, and General Eberhard knows the demands he places on us.

Chairman WARNER. Secretary Roche, I have a very detailed and technical question regarding a program and I'm going to put it in the record.

Secretary ROCHE. I'd be delighted to, sir.

Chairman WARNER. We monitor that program with care. Do we have concerns over these cost overruns and consequences of financial diminution and size of the force?

Secretary ROCHE. Yes, sir.

Chairman WARNER. The subject of the Montgomery GI Bill benefits from taking these trips and getting down to these troops in the field. They are concerned about their families and different things but a number of them asked me and my colleagues about this program.

Congress—I was very active in this—gave you authority with regard to transferability of benefits. For those who may be following and are not familiar with this, the service person, male or female, whatever the case may be, earns the GI Bill, and in some instances, they complete much of their education or they feel as a parent that they should give that very important asset that they earn through their service to their spouse or their children. Each of the departments has treated this in a different manner. Let us just start with the Secretary of the Air Force first.

Secretary ROCHE. I'm not up on how we deal with it. I know I have talked with some of our senior-enlisted. They agree this is something that would be useful if it was given to the senior-enlisted because they made decisions to stay in the Service, as opposed to going outside. They are probably not going to go to college, and, therefore, they feel they are losing something. They would like to see a transfer, but with regard to exactly how we are handling it, I will have to get back to you.

Chairman WARNER. This is on the minds of these young people, I tell you, very much so. I'm hopeful that you will avail yourself of the authority. I have very modest, relatively insignificant, tours

of duty in the Navy and Marines, but I'm here as a United States Senator solely because of the GI Bill.

I received very generous treatment from two modest tours of active service, and I just feel that I want to participate with my colleagues on this committee and other members of the Senate in providing for the current generation of people in the service in a manner that's so generously given to me, to use it. If not, we will make it mandatory.

Secretary JOHNSON. As I talk, as you do, to these people, this subject comes up. Our approach is to try to use it as a retention tool for senior NCOs. In particular, to have it more focused as opposed to having a situation where a person can come in to gain that benefit.

Secretary WHITE. I would agree with both of my colleagues. That would be the final approach. We need to get on with it and make some decisions.

Chairman WARNER. I thank you for that commitment because there is one thing we all know from our service time in uniform. Boy, the word goes through the ranks fast. The big boys at the top are going to make it work. I understand your retention is at an all-time high and that's magnificent.

Your recruiting is at an all-time high, but I have been here long enough to see this drop off and have serious problems. I hope we do not see those stressful periods again. So let us strengthen everything we can for these people.

Unmanned systems has been a favorite subject of mine in this committee for a long time. I'm very proud of the strides that this committee made when I was privileged to be chairman some years ago and Senator Levin has continued to join me in periods of his chairmanship. In fiscal year 2001, this committee set the ambiguous goal of getting the technologies that would lead to the development of the fielding of unmanned operational combat systems.

This budget continues to build on that goal by increasing funding for unmanned systems by more than 25 percent over last year's funding. I commend the administration's commitment to this transformation. Could each of you tell us your view of the role of unmanned systems in ongoing and future operations and what technology in unmanned systems requires more investigation? Start with Secretary Roche because he knows about the Predator. I was astonished we could do two a month.

Secretary ROCHE. It's up to three now, sir.

Chairman WARNER. It was magnificent, very small company that has the patents, and it's not easy to go to a second source. Also, the highly technical part of that, down in the guts of it, hard to mass produce it.

Secretary ROCHE. It turns out we looked seriously at whether we should have more. I took the planes one and a half a month to three a month making each of them a common fire wing. It's not the limiting feature of the sensor systems that you could put on these. Three a month if everybody will steady out in time will give us a very good output on a continuing basis.

One of the things that's been interesting since your original legislation is we have had a lot of learning. We may be able to use things in the Afghan war. General Franks was really terrific to

General Jumper and me and allowed us to take systems that weren't ready for prime time and deploy them knowing full well we are going to have failures and a bunch of other things. We have learned so much of that that our views of unmanned aircraft, remotely piloted aircraft, and unattended aircraft have changed and we are getting quite excited, to the point where we are attempting to replicate what occurred in the Army Air Corps in the late 1930s where different types of systems were developed, airmen got together and used them from that developed doctrine.

There is a point where Congress passed a law on the limit of the length that a bomber could fly, that we gave the planes to the Navy. Series of things that we have done and that were dramatic in World War II. Right now, we know certain systems require pilot in the loop.

It's the instinct of that young officer who takes the plane and turns it in such a way that for most radars—it's called a zero doppler notch—there is not enough doppler. Therefore, the fighter plane cannot see it. We have been shot down once, but these tactics that they have learned as pilots become very handy.

Also, since these things can be attack systems, we want the same officer responsibility that we have in all of our other systems. That can be done by keeping the pilot in the loop, remotely pilot the aircraft. Then there is Global Hawk. Where Global Hawk has long-term persistence, very high altitude and Global Hawk can give you a U–2 complement.

We are thinking of taking things from space and linking down. For instance, we could in fact have reinforced GPS signals from Global Hawk orbits or provide a local area communication system without having to use all the bandwidths on a particular region. Working these through, we have tried to provide self defense on some of our drones.

We have other families. Predator will go higher and faster. We consider it a hunter killer. The electronics and avionics are appropriate for a remotely unattended aircraft, just having a pilot, it's going to dance on its hind legs. But now that it's dancing, what do you do for it? If we can tailor it, they can make a contribution to war. Hunter killer would be designed to do automatic cueing.

We are borrowing things we have learned from the Navy. This thing can hunt, hunt, hunt. Let us know when it all of a sudden sees a match; then we can put the pilot back into the loop and act like a typical attack officer who will take responsibility for the attack he conducted. We find this to be a very exciting thing. There are some that have been in the classified world. We will have multiple families and figure out where the comparative advantages are.

We know some place where there is no comparative advantage. When it comes to judgment, you cannot beat the mind of a man or woman flying the plane. We take areas where there is comparative advantage and assign those increasingly to these unattended or remotely piloted aircraft.

Chairman WARNER. Do you feel that the program is at about the right pace?

Secretary ROCHE. Yes, sir. We have debates with some of our colleagues as to design and comparative advantage. What we really

notice is persistence is terribly important. Long stay. What we call digital acuity, which means that a digital system does not tire the way an operator tires.

As any of the three of us know, if you put someone on a radar scope, there is only so much time. You do that in digital domain, that thing will be as good at 23 hours as it was at 2 hours. We find it to be a very exciting area, and no fighter pilots are complaining because they understand this is a good contribution to war, and they do not want to just bore holes in the sky searching.

They have been able to work with these systems beautifully. With Predators, pilots have done laser bombing from our own drones, and when they talk to the little thing, it answers right back.

Chairman WARNER. Good. That's quite encouraging. Do you see other nations moving along at any pace near what the United States would achieve?

Secretary ROCHE. No. But we are starting to see other interests. Some of the exports of the Israelis may come back and haunt us some day. But other countries are starting to recognize that there is something here. Even some country in the Middle East that you would otherwise not expect recognize the great advantage of using these vehicles.

Secretary JOHNSON. Admiral Clark is working very closely with General Jumper on our joint unmanned vehicle development. We in the Navy have additional activities in the Marine Corps. One we would like to do more in the maritime arena.

Ultimately, we are interested in having unmanned vehicles to do undersea activity to destroy mines and operate them from on board ships. There is a lot of science that has to be done, but we have great cooperation with all the Services, and we all have the same interest in moving forward. The Marines would like to have an expendable and see what is there.

Secretary ROCHE. Something that's very exciting we have been doing is that there are some of these that are only this big but if you are trying to do base security overseas whether we are trying to do it for our bases or working with the Army, the Army has the intellectual lead here, and they have developed some of these that are just fabulous. John and I united in the desert up in the mountains to watch how they could effectively use these very small systems with very light cameras and do a terrific job at surveillance. So the whole field is exploding in some very interesting ways.

Secretary WHITE. In the current time frame, as Secretary Roche just said, we have been using the small robotic vehicles in Afghanistan to clear caves and do things that would be potentially hazardous. We are also fielding right now shorter range UAVs that Jim is talking about for our brigade commanders who are buying eight Shadows this year which the brigade level went. We are buying 800 UAVs for corps commanders and fielding those right now. In the Objective Force in the Future Combat System, there is a family of unmanned ground vehicles and a new family of unmanned aerial vehicles to support the force. So we are investing heavily in this and we appreciate your support.

Chairman WARNER. I have taken an interest, of course, in the civilian applications, but I'm also finishing up here very shortly com-

munication to the administration urging that this be studied very carefully because of the potential to invade privacy. As the private sector takes much of the technology which the military departments have done on this in R&D and otherwise, and puts it into the private sector, that's something our country has to monitor carefully.

Pay equity for soldiers stationed in Korea. Last month, I met with the general commander of the U.S. Army forces in Korea. We discussed hardship assignment to Korea with living and working conditions, family separation, and pay disparity comparative to those serving in Japan. I understand that soldiers are continuing to turn in resignations for officers rather than facing another tour.

This is a tough question, Mr. Secretary. I know you are doing your very best. If you could just bring us up-to-date because I'm going to continue to monitor this. I spent some time over there, a short tour. The weather was challenging, to say the least.

Secretary WHITE. It's a difficult place to serve. We have people in several locations. We are examining the whole posture there as Secretary Rumsfeld talked about, but there are financial disadvantages to serving in Korea as opposed to other parts of the world. Consequently, we have a very high turn-down rate of soldiers put on assignment there.

We have talked about it with the previous commander there, General Schwartz brought this up. We have had extensive discussions with the Office of the Secretary of Defense but we have not resolved anything at this point, and I'm going to continue to push.

Chairman WARNER. I have to say, Mr. Secretary, that every problem has a solution. In the course of this current bill that is to be written by this committee, I want to include provisions in it that will correct this. I have great respect for Secretary Rumsfeld and his team, but I guess there are times when Congress has to step out. No criticisms of the other co-equal branch of the government, the administration, but we are going to solve this. We are going to make some progress in this legislation this year.

Secretary WHITE. Good, sir. Soldiers will be better off for it.

Chairman WARNER. I have a personal interest, and now, of course, the Korean peninsula poses a very serious threat situation which I think is being commendably addressed by our President and others in a diplomatic manner.

Gentlemen, I thank you for an excellent hearing today, very thorough, and I wish you well. We are adjourned.

[Questions for the record with answers supplied follow:]

QUESTIONS SUBMITTED BY SENATOR JOHN WARNER

PREDATOR UNMANNED AERIAL VEHICLE

1. Senator WARNER. Secretary Roche, the Predator Unmanned Aerial Vehicle has proven to have tremendous operational capability. How many of these vehicles are currently in service? What is the current Predator production rate? What, if any, are the limiting factors to the production rate?

Secretary ROCHE. The Air Force has 46 Predator Unmanned Aerial Vehicles in service with an additional 42 that are funded through this year. In October 2001, I directed acceleration in production to two Predator aircraft per month. This acceleration will continue with deliveries through 2004. The primary limiting factor to increasing production is our current production facility capacity. Within our current facilities, up to four Predator aircraft can be produced per month. This will, how-

ever, require additional production line employees, and an investment in additional production tooling.

F/A–22 RAPTOR AIRCRAFT

2. Senator WARNER. Secretary Roche, this past year, the Air Force changed the designation of the F–22 Raptor to the F/A–22. I want to commend the Air Force for recognizing the importance of capitalizing on this aircraft by expanding its mission to include a ground attack role. I also understand, though, that delays in the development program have caused cost growth in excess of $800 million, which has to be made up out of available production funds for the aircraft. What is your assessment of the causes for the delay and the cost growth in the F/A–22 program?

Secretary ROCHE. As a result of resolving several development-related issues—such as fin buffet, canopy howl, and avionics stability—we extended the Engineering and Manufacturing Development (EMD) schedule to allow proper completion of envelope expansion flight testing, and avionics development and avionics flight testing. This extension reflects the fact that the program is event-driven, not schedule driven. We will complete all EMD content required to deliver an ORD-compliant aircraft to the warfighter. The resultant impact of the schedule extension is an $876 million increase to the EMD estimate-at-completion (EAC). Of note, this amount includes a risk factor to increase confidence in the estimate. We sourced this EMD EAC increase from within the F/A–22 program. It is important to also note that this EMD schedule extension, and corresponding EAC increase, does not indicate a concern regarding aircraft performance, nor does it represent an increased risk of production retrofit.

PRECISION-GUIDED WEAPON INVENTORIES

3. Senator WARNER. Secretary Johnson and Secretary Roche, while only 10 percent of the air-launched weapons used in Operation Desert Storm were precision-guided, a much higher percentage of precision weapons have been used in more recent conflicts, such as Operations Allied Force and Enduring Freedom. Do you believe that the current inventories of these weapons are sufficient to carry out possible conflict with Iraq?

Secretary JOHNSON. Yes, I believe that the current inventories of precision-guided weapons are sufficient.

Secretary ROCHE. CENTCOM's munitions requirements for operations are being met. As a result of supplemental funding, the Joint Direct Attack Munition (JDAM) procurement program has been energized to reach a production rate of 2,800 units per month by July 2003. We are currently at a rate of over 2,400 units per month, and have in excess of 18,000 JDAM in the Air Force inventory. Overall, procurement of JDAM for the Air Force will exceed 150,000.

Supplemental funding and increased emphasis on collateral damage, the Air Force has committed to procuring additional Laser Guided Bombs (LGBs), specifically the GBU–12 which has a 500-pound blast/fragmentation warhead. The Air Force qualified a second vendor, Lockheed Martin, in the summer of 2002. As a result, the Air Force is procuring over 40,000 GBU–12s through the Future years Defense Plan (FYDP). Current production rate is 1,650 LGBs per month (accelerating to 2,000 by summer 2003), and we have in excess of 11,000 GBU–12s in the Air Force inventory.

QUESTIONS SUBMITTED BY SENATOR JEFF SESSIONS

ARMY EDUCATION

4. Senator SESSIONS. Secretary White, the Army has enjoyed a great reputation with their eArmyU program. You currently have roughly 35,000 soldiers enrolled with many more on waiting lists. What do you see as the future for eArmyU and is the Army committed to funding this program so our soldiers can continue to gain educational benefits?

Secretary WHITE. The Army is committed to funding eArmyU as it expands from its current 14 sites to Army-wide status in 2005, at which time enrollment will reach 80,000. eArmyU is successfully reaching a new generation of soldier-students and helping them to achieve their academic goals. The program offers unprecedented academic access, choice, and flexibility and continues to set the standard in today's online learning environment.

Today, eArmyU enrolls over 33,400 students. This number is expected to reach 40,500 by September 2003. eArmyU soldiers have access to 115 degree and certificate programs through 23 colleges and universities by logging in to the eArmyU.com portal. We are currently in the process of adding 12 new institutions this year, which will soon bring our total to more than 30. What's even more exciting for us is the scope of our program. eArmyU is fulfilling the promise of "anytime-anywhere" learning. Soldiers located in 50 countries, four U.S. territories, and 49 States are taking classes through the eArmyU portal. More than 135 soldier-students have graduated as of February 27, 2003.

The Army's purpose in creating eArmyU was to enhance traditional learning programs and services by providing an anytime, anywhere distance learning program that ensures eligible enlisted soldiers have full access and scholastic support to achieve their educational goals. We know that continued support to the program benefits not only the soldier, but the Army as a whole.

As a testament that eArmyU is a long-term investment for the Army, I am pleased to report that the program is being transitioned into standard Army operations. Efforts are underway to incorporate eArmyU into the Army Knowledge Management structure. Additionally, we are developing concepts such as an education shared data warehouse, in which eArmyU's data management capabilities will be the cornerstone that allows us to leverage all current and legacy Army education data.

Online education continues to reach a new generation of learners. e-Learning will become a dominant approach to educating a broad cross-section of the American population in coming years. Finding ways to build enhanced and specialized academic support for online learners will continue to play an important role in this revolution. eArmyU will lead the way in providing the most effective e-Learning tools in the most cost-efficient e-Learning environment.

NATIONAL GUARD FAMILY ACTIVITY CENTER

5. Senator SESSIONS. Secretary White, during Operation Desert Shield and Operation Desert Storm, once the number of mobilized National Guard troops reached a certain level, the National Guard received Temporary Tour on Active Duty (TTAD) funds to staff Family Activities Centers (FAC) in each State with retired military personnel. These centers supported the families of deployed National Guard soldiers. I have been told that, to date, no funds have been received to support any FACs. With the numbers of deployed guardsmen approaching the number activated during Operations Desert Shield/Storm, there is a pressing need to ensure that we are taking care of the families of our guardsmen. Can you provide an update on the status of plans, to include funds expended or planned for expenditure, that address the obligation that we have to provide support for these family members?

Secretary WHITE. We did not receive any funding for this critical requirement. The National Guard Bureau provided a baseline requirement of $60 million to support this mission. This unfunded requirement was submitted to us for the global war on terrorism supplement. The Army National Guard borrowed $13 million from other accounts to support initial manpower requirements to ensure immediate family assistance and services were accomplished.

During large activations and deployments, the Army National Guard sets up and operates Family Assistance Centers throughout the Nation to serve families. These centers are usually staffed with between one to three paid personnel and are expected to provide 24/7 on-call contact availability. Based on increased mobilizations, we estimate an eventual requirement for approximately 400 FACs across America. Of these 400 centers, approximately 275 are currently operational. We have a statutory and regulatory obligation, as well as a moral imperative, to assist and support our military families. Full funding of this requirement is critical to the success of the Reserve component's mission accomplishment.

AIR FORCE TECHNICAL TRAINING SCHOOL SUPPORT

6. Senator SESSIONS. Secretary Roche, I understand that training slots for many different technical specialty schools are in short supply, and that the technical training schools are having difficulty meeting the demands of the Reserve customer. In the past, most reservists were prior active duty members, and joined the Reserve component already trained. However, today the majority of the people joining the Reserve are non-prior service. This change has led to an increase in the Reserve's training needs. Further complicating the issue of training and scheduling school dates is the reality that reservists must attempt to schedule their training around

the needs of their civilian employers. Therefore, the reservist often cannot fill training school vacancies on short notice.

Today, my Reserve unit reports that 57 Air Force technical training schools are already closed for fiscal year 2003. As a result, a new recruit joining the Air Force/Air Force Reserve today will have to wait a significant amount of time before being inducted because of this shortage of school slots.

Do you see a need for increased capacity in Air Force technical training schools, and does the Service have any plans or initiatives underway to increase the number of training slots to meet the increased and changing nature of the demand?

Secretary ROCHE. The Air Force is in the process of reshaping the force in response to the current security environment. Some Air Force Specialty Code technical schools met past capacity requirements, but are now feeling stressed because of meeting new or expanded mission demands. As we work through this force reshaping, schoolhouse requirements will be adjusted. Active and Reserve component requirements will be re-evaluated and enough seats made available to meet new steady state current and future requirements.

In the interim, the timing of course dates may not be as convenient; however, sufficient seats will be available to accomplish Total Force mission requirements. Our focus is on making force-shaping adjustments while maintaining the most effective and efficient Total Force training pipeline possible. We expect to sustain adequate capacity given the size of the force we have today.

ENVIRONMENTAL LEGISLATION CONCERNS

7. Senator SESSIONS. Secretary Johnson, in testimony before this committee, the Secretary of Defense and the Chief of Naval Operations have said that environmental concerns are weighing heavily on your ability to train. This negative impact, in turn, has negatively affected readiness. So that the record on this subject is clear, could you offer some examples, some evidence of this problem, and how you believe legislative relief will re-strike the correct balance between training and readiness and environmental stewardship.

Secretary JOHNSON. With regards to the Marine Mammal Protection Act and the Endangered Species Act, the following examples and requested relief are provided.

Examples of Impacts from the Marine Mammal Protection Act

1. Operational training and deployment of the Navy's Surface Towed Array Sonar System Low Frequency Active (SURTASS LFA) sonar system has been delayed for 6 years, even after the Navy invested $10 million on independent scientific research that showed the system could be used with negligible impact on marine mammals.

2. During the last 6 years of research on how to counter mines and detect submarines in shallow water, over 78 percent of the tests planned by the Navy's Office of Naval Research (ONR) have been delayed, scaled-back, or cancelled due to environmental regulations having to do with marine mammals under the Marine Mammal Protection and Endangered Species Acts.

3. Navy's efforts to establish permanent at-sea shallow-water training ranges for both the East and West Coast are being delayed by environmental regulations and the potential for litigation, particularly over how to apply the definition of "harassment" in the Marine Mammal Protection Act to Navy training.

How Congress Can Help By Passing DOD's Proposed Legislation for MMPA

Clarifying the definition of harassment could reduce special interest group lawsuits that challenge regulatory agency interpretations of "harassment." Special interest groups can overstate the impact of Navy activities with arguments based on vague terms such as "annoyance" and "potential to disturb." A clearer, science-based definition based on biologically significant behavior could show that Navy activities actually impact only a minimal number of marine mammals. Clarifying the definition could also reduce unnecessary modification (dumbing down), delays or cancellation of valuable Navy training and testing.

Examples of Impacts from the Endangered Species Act and Critical Habitat Designation

1. In 1996, when 40 percent of the Chocolate Mountain Aerial Gunnery Range was designated as "critical habitat" pursuant to the Endangered Species Act, Navy sea/air/land (SEAL) training was negatively impacted. Before the designation, Navy SEALs conducted realistic training with multiple avenues of approach. Navy SEALs using this important range are now restricted to firing their weapons in a narrow field of fire to avoid firing toward the critical habitat.

2. Environmental-based restrictions on training at Southern California ranges normally used by SEALs, including Endangered Species Act restrictions for birds at Naval Amphibious Base Coronado, have caused the SEALs to relocate much of their training. Utilization of military lands to protect species without recognizing the comprehensive impacts to the military is a constant concern.

3. Environmental restrictions for the protection of birds and lizards at San Clemente Island, another important SEAL training range, significantly impact the use of live ammunition. As a result, the SEALs resorted to using blanks, paint balls, laser tag, and other simulated ammunition.

4. Due to similar ESA-based restrictions in the Marianas Islands intended to protect sea turtles, the Tinian Monarch (a bird), the Micronesian Megapod (a ground bird), and the Marianas Fruit Bat, as well as providing protection for near-shore coral reefs, the amphibious landing portion of this year's exercise Tandem Thrust will not include landings on the beach by air cushion landing craft. Tandem Thrust is a multi-national exercise involving the U.S. and other allied nations (Australia, New Zealand, Canada, and others) supporting Commander, U.S. Pacific Command's warfighting readiness.

5. The U.S. Fish and Wildlife Service recently proposed designating critical habitat on two Navy installations on Guam and Hawaii where the relevant endangered species are not currently present on Navy lands. Both these installations have Integrated Natural Resource Management Plans (INRMPs) for managing the natural resources that currently exist within their boundaries. The U.S. Fish and Wildlife Service's goal is to introduce these species on Navy land now dedicated to training.

How Congress Can Help By Passing DOD's Proposed Legislation for ESA

Changing the ESA so that an approved INRMP removes the need for a critical habitat designation will protect endangered species under the overall management plan for all natural resources.

QUESTIONS SUBMITTED BY SENATOR SUSAN M. COLLINS

LITTORAL COMBAT SHIP (LCS) AND DD(X)

8. Senator COLLINS. Secretary Johnson, in its fiscal year 2004 budget submission, the Navy includes $160 million for the LCS. Admiral Clark, the Chief of Naval Operations, has indicated that this is a top priority of the Navy in this year's budget. Last week, the Navy issued a request for proposals to build the first LCS. This vessel is aimed at providing the Navy with better capability to operate closer to shore. However, these kinds of ships cannot serve as a substitute for major surface combatant vessels. The Navy's budget submission also includes $1.1 billion for development of the DD(X) destroyer. I would like to hear your insights into the different capabilities that the LCS and DD(X) destroyer will provide. Is the development of DD(X), along with the LCS, a top priority for the Navy?

Secretary JOHNSON. Development of both our next generation destroyer, DD(X), and the LCS is critical to the future Navy. Future surface combatants are optimized to perform key functions: LCS to assure access to littoral regions in the face of asymmetric threats such as mines and submarines; DD(X) for delivery of precision strike and volume fires in support of forces ashore; and the next generation cruiser, CG(X), to create and maintain air superiority over joint forces at sea and on land, as well as defend the homeland against ballistic missile threats. As such, DD(X) and LCS will provide complementary capabilities, described below, to the Fleet.

Armed with an array of land-attack weapons, such as Tactical Tomahawk and the Advanced Gun System (AGS), DD(X) will provide persistent, distributed, long-range, precision attack needed in support of our joint forces operating deep inland. It will combine this firepower with 21st century technologies such as stealth, integrated power systems, and electric drive propulsion. The added electrical power will allow DD(X) to spiral develop to hyper-velocity and laser weapons.

LCS will capitalize on emerging unmanned vehicle technologies and perform the focused Sea Shield missions of MIW, Surface Warfare (SUW), and ASW. It will provide the fast, affordable, focused-mission capability that will sustain access and enhance the Navy's ability to establish sea superiority not just for our Carrier Strike Groups and Expeditionary Strike Groups, but for all the joint logistics, command and control, and prepositioned ships that must transit the critical littoral threat area to move and support forces ashore.

9. Senator COLLINS. Secretary Johnson, it is critical that the Navy build on the momentum of the fiscal year 2004 budget submission in the coming years. According to documentation submitted by the Department of Defense, the Navy has budgeted

$12 billion for shipbuilding in fiscal year 2005, including an additional three DDG–51 destroyers. However, as it currently stands, there is no funding for DDG–51s after fiscal year 2005. The DD(X) destroyer program is scheduled to begin production at that time, but there only appears to be funding for one DD(X) in fiscal year 2006, and one in fiscal year 2007. The possibility of only two major surface combatant ship constructions in fiscal year 2006 and fiscal year 2007 would substantially damage the industrial base. Is the Navy committed to addressing this problem?

Secretary JOHNSON. In order to transform to meet future threats, the Navy must move toward DD(X). The current plan is to complete procurement of 62 ships in the DDG–51 class in fiscal year 2005. A single DD(X) in fiscal year 2006 and fiscal year 2007 creates pressure on the surface combatant industrial base, but is mitigated by the 10 ship DDG multi-year procurement and the workload swap between Bath Iron Works and Northrop Grumman that will optimize production efficiencies and stabilize workload at both shipyards. The Navy is committed to maintaining a robust and competitive shipbuilding industrial base. Industrial base concerns will be taken into consideration in the formulation of future budgets.

10. Senator COLLINS. Secretary Johnson, DD(X) will allow the Navy to field a fleet of highly capable and affordable warships. It will accomplish this by leveraging R&D costs, resultant technologies, and efficient processes and benefits across multiple platforms. DD(X) is also central to improving quality-of-life for our sailors—even more important as we ask our Armed Forces to do more in the new security environment. Would you discuss the value that you believe DD(X) and its family of ships will provide the Navy team, and further could you speak to the $1.1 billion investment proposed in the fiscal year 2004 budget for this family-of-ships?

Secretary JOHNSON. DD(X) will be armed with an array of land attack weapons, such as Tactical Tomahawk and the AGS to provide persistent, distributed, long-range, precision attack needed in support of our joint forces operating deep inland. Tactical Tomahawk will reach up to 1,000 miles inland as a responsive call-for-fire weapon. AGS will provide fires to 100 miles, a seven-fold improvement on current capability.

DD(X) will take advantage of advanced stealth technologies to be less detectable and more survivable to enemy attacks than the ships it will replace. An open architecture, distributed combat system will support a "plug and play" environment in which to operate AGS, an advanced vertical launching system and a Multi-Function Radar/Volume Search Radar suite. Other features on DD(X) will include an advanced hull form, integrated electric drive propulsion, optimized manning, and extensive automation.

The DD(X) research and development effort will enable the Navy to keep pace with today's rapid technological advances, spiraling promising technologies to both CG(X) and LCS. It will also enable the Navy to upgrade in-service Aegis cruisers and destroyers with selected leading edge technologies to maintain operational effectiveness of the legacy, multi-mission fleet. The fiscal year 2004 President's budget requests $1.058 billion for DD(X) to fund continuation of the DD(X) design effort and continued design, development, and test of the 10 DD(X) Engineering Development Models (EDMs) listed below:

Advanced Gun System (AGS) and Munitions
Integrated Power System (IPS)*
Volume Search Radar (VSR)/Multi-Function Radar (MFR)
Radar Suite*
Total Ship Computing Environment (TSCE)*
Peripheral Vertical Launch System (PVLS)
Integrated Deckhouse and Apertures
Autonomic Fire Suppression System (AFSS)*
Infrared Mock-ups
Hull Form Scale Model
Integrated Undersea Warfare System (IUSW)

The DD(X) lead ship contract award is scheduled for fiscal year 2005.

The LCS will use emerging unmanned vehicle technologies and deliver the focused Sea Shield missions of MIW, SUW, and ASW. It will provide the fast, affordable, focused-mission capability that will sustain access and enhance the ability to establish sea superiority not just for our Carrier Strike Groups and Expeditionary Strike Groups, but for all the joint logistics, command and control, and prepositioned ships that must transit the critical littoral threat area to move and support forces ashore.

* EDM will be tested at-sea.

The fiscal year 2004 President's budget requests $158 million for LCS to support hull form development, mission module development and integration, and requirements analysis. The LCS Integrated Requirements Document has been completed and construction of the first LCS is expected to commence in 2005.

AIR FORCE ACADEMY

11. Senator COLLINS. Secretary Roche, as I expressed last week to General Jumper, I am appalled by the allegations of sexual assaults at the Air Force Academy. Along with Senator Lieberman, I have asked the Department of Defense Inspector General to investigate this very disturbing situation. Your cooperation in looking into this matter has been appreciated. The perpetrators of these crimes are a discredit to the Academy, and a discredit to the Air Force. Since these crimes have come to light, what actions have you taken to ensure that the young women at the Academy receive the protection and attention that they require?

Secretary ROCHE. We are conducting a comprehensive review of Air Force Academy programs and practices to deter and respond to sexual assaults. In connection with that review, we are looking closely at factors affecting both reporting and handling of alleged incidents of sexual assaults, including the cadet hierarchy and the relationships between the upper and freshman classes. We are also evaluating how the Academy administers cadet discipline in order to ensure there are no obstacles to the reporting of crimes. We are evaluating how we select, train, and organize the professional staff to ensure we provide the best available supervision and mentoring. We are also reviewing the process of investigating allegations of sexual assaults, as well as the awareness training, medical care, counseling services, legal consultation, victim advocacy, and spiritual support we provide to victims to ensure they receive the support that they need, and fair treatment throughout the investigative and judicial process. We are also clarifying the definition of sexual assault used at the Academy to include only conduct that constitutes a crime.

While our review is continuing, General Jumper and I have made changes in Academy leadership in order to implement some significant changes to reinforce our goals to train and equip tomorrow's leaders at the Academy. We intend to ensure the safety and security of every cadet and to enhance the trust and confidence of the American people in the Air Force Academy. On March 26, 2003, we announced our Agenda for Change, which directs a variety of changes including among others those regarding cadet life, Academy leadership, officer and NCO selection and training, security for cadets, and the social climate at the Academy. The full Agenda for Change has been made available to the committee. These changes, which are to be implemented in time for the arrival of the entering Class of 2007 this fall, are intended to reinforce the values of character, leadership, integrity, and honor that we must instill in every cadet and future Air Force officer.

This job is not finished, but we think we've made a good start. Our bottom line is this: sexual assaults will not be tolerated at the Air Force Academy, and all who commit sexual assaults will be brought to justice. In addition, those who knowingly protect perpetrators, and those who would shun or harass anyone with the courage to come forward and report these crimes, will be held accountable.

CHEMICAL AND BIOLOGICAL DEFENSE EQUIPMENT

12. Senator COLLINS. Secretary White, during last week's hearing with the Service Chiefs, I asked General Shinseki about a July 2002 Army Audit Agency report dealing with the Army's preparedness to deal with a chemical or biological attack. The results of this audit were very troubling. Of the 25 units reviewed at Fort Hood and Fort Lewis, 18 of them were not judged to be proficient in operating chemical and biological defensive equipment. Also, inspectors found that many units were not performing adequate preventative maintenance on their chem-bio defense equipment. Given the possibility of war against Iraq, I am very concerned about these findings. "60 Minutes" recently did a story based in part on this audit. Can you assure not only me, but also the troops who are even as we speak being deployed to the Persian Gulf, that they have adequate training and equipment to deal with a chemical or biological attack?

Secretary WHITE. U.S. forces serving in Iraq and throughout the Gulf region are trained and prepared to operate in a contaminated environment. The threats and challenges presented by operating in a contaminated environment may increase the degree of difficulty, but are not insurmountable. Our forces are trained, and they have the equipment they need to survive and sustain operations in a nuclear, biological, and chemical environment.

Army individual and collective training doctrine places great emphasis on sustaining a "band of excellence" across a range of tasks that specifically focus on the unit's mission essential tasks. In the last several months, these training programs received significantly greater attention and focus. Military commanders recognized the immediacy of the threat of weapons of mass destruction in Iraq and initiated training to improve their chemical-biological defense equipment readiness. Each unit mobilizing or deploying in support of current operations will conduct individual skill training validation before and after deployment to ensure they are fully capable of operating equipment in a chemical-biological environment.

MEDICAL CONDITIONS CAUSED BY WAR

13. Senator COLLINS. Secretary White, Secretary Johnson, and Secretary Roche, a sad part of modern warfare is the illnesses that have cropped up after our Nation's last two major conventional conflicts. Many of the men and women who served during the Vietnam War were afflicted with Post-Traumatic Stress Syndrome. As we saw over the years, Agent Orange has had devastating long-term impacts on some veterans of that conflict. Following our last war against Iraq, some veterans suffered as a result of what we now call Gulf War Syndrome. There is still debate about its causes. As we stand potentially on the brink of another conflict in the Middle East, what steps are your Services taking to adequately track the health of those serving in the Persian Gulf? If there is a conflict, will we have an adequate foundation of data to ensure that if another illness should appear, like Gulf War Syndrome, that we will be able to adequately diagnose its causes?

Secretary WHITE. Numerous steps have been taken to track the health of soldiers serving in the Persian Gulf. These steps include measures that occur before, during, and after the deployment period. Before departure, all soldiers complete a pre-deployment health assessment to determine if individuals have pre-existing medical conditions that might affect their health while deployed. Evaluations by medical specialists are completed, when necessary, to assure that deploying personnel are fit for service in a combat zone. Copies of data from the health assessment are archived and reviewed periodically to assess the health of deployed service members. During deployment, a standardized health surveillance system is implemented to detect and mitigate any outbreaks of illness. Data from this system is captured electronically and can be monitored from any place in the world through secure Internet access. In addition, all soldiers deploy with a recently implemented deployment health record to assure that all medical encounters are recorded and archived for future review.

In addition to these measures, an active environmental surveillance program is conducted by the combatant command to proactively identify and assess any potential threats that are recognized. A systematic information system assures that evaluations are completed on a timely basis, that results are communicated to appropriate authorities for action, and that all evaluations are permanently archived for later review.

At the time of redeployment, numerous processes are in place to assess and assure the health of soldiers who are coming home. These include a medical debrief on the threats encountered while deployed and information on what to do if health problems occur at a later time. During the redeployment process, soldiers undergo an expanded health assessment to identify any physical or mental health issues that may have developed during the deployment. Any health issues identified during the post-deployment health assessment are referred to specialists for further evaluation using the Deployment Health Clinical Practice Guideline developed at Walter Reed Army Medical Center. This guideline requires that all deployment-related health visits be recorded using a special diagnostic code, so that such visits can be monitored electronically.

In summary, an intense effort has been made to safeguard and monitor the health of soldiers deployed during Operation Enduring Freedom and to Iraq. Numerous data systems are in place to track health outcomes on an individual level, monitor environmental exposures in theater, record clinic visits occurring during or after deployment, and assure that appropriate health care is provided. These new efforts enhance abilities to rapidly detect any emerging health problems that occur as a result of the deployment, focus on groups of service members that may be affected, and identify potential exposures that may have been the cause of specific clusters of illness.

Secretary JOHNSON. The Department of Defense is enhancing the post-deployment health assessment process. The improvements include a more comprehensive health assessment and a blood sample taken within 30 days of leaving the theater. The

more comprehensive assessment will provide individual information about events that occurred during a deployment and enable the DOD health care providers to more effectively assess health status as they interact with each service member. The blood samples will be forwarded to the DOD Serum Repository for archival purposes. These enhancements are just one piece of the total force health protection program that also includes increased environmental surveillance, electronic medical recordkeeping, and improved unit location data. Commanders are responsible for complete redeployment processing of their personnel and helping each individual to make a smooth, post-deployment transition, according to DOD guidelines. Because deployment health concerns often evolve over time, commanders also encourage their returning service members to re-visit with health care providers to address all deployment related health concerns. The complete force health protection program, including regular blood tests, regular physical examinations, annual dental examinations, annual medical record reviews and pre- and post-deployment health assessments, assists DOD in providing a world-class continuum of care from accession to separation. The health and safety of our people is our top concern. DOD will continue to improve the force health protection program based on medical lessons learned from deployments. DOD is committed to providing service members and the public access to accurate, consistent, and comprehensive information about post-deployment force health protection policies and to instilling and maintaining public confidence in DOD's concern for the health of its personnel, its health care system, and its ability to respond to any health concern that may arise from a deployment.

Secretary ROCHE. The men and women of the United States Air Force deserve our every effort to protect their health both at war and in peace. The pillars of force health protection are recruiting and maintaining a fit force, preventing disease and injury, and caring for those who are injured or become ill. The Air Force is committed to force health protection through the life cycle of their service. The cornerstone of our effort is rooted in the Deployment Health Surveillance program. Mandated by public law and implemented by Department of Defense Instructions, this program combines elements of preventive and supportive medicine to protect the health of our airmen.

The program includes pre-deployment health assessments. These assessments provide baseline data—the "foundation of data" that you speak of—that can be used to compare against post-deployment assessments to determine the deployment's impact, if any, on the member's health. Our Deployment Health Surveillance program also includes immunizations, serum sampling, patient record maintenance, and centralized data storage for ongoing and future analysis.

None of these individual tools will yield the total picture, but taken together they ensure we will have the information we need to monitor, investigate, improve, and protect our members' health.

Our primary goal is the prevention of the conditions you rightfully address in your statement. Environmental surveillance at deployment sites initially includes sampling air, water, and soil, and continues with routine monitoring of food, water, and endemic disease vectors. Since the Gulf War, we have established many programs for deployment health surveillance. While these programs have greatly increased our ability to detect health hazards, reduce risks, and survey for health problems in personnel who have deployed, we are continuing to improve in a number of areas. Here are some of the concrete efforts and initiatives we are currently working:

- Automation of the deployment health assessments, in cooperation with the Assistant Secretary of Defense for Health Affairs
- Enhancement of the health assessments returning airmen receive before leaving theater and within 30 days of returning to home station
- Automation of deployed health records and records of medications taken while deployed
- Electronic recording of environmental data
- Mental health assessments and critical incident stress support both in theater and at home
- Agile medical support in theater to prevent casualties and illness
- Archiving of unit locations throughout a deployment for possible future use

We are continuing to enhance the care we provide when service members develop conditions possibly related to deployments. To this end we have implemented a program to screen personnel for deployment related health concerns and to use a clinical practice guideline, developed in cooperation with the Veterans Administration, to address those illnesses and conditions that could be associated with combat service. We have linked such care to our automated record of clinic visits to ensure we can track these patients and the care they receive.

We maintain deployment related medical and environmental data in a variety of repositories. The main Department of Defense repository for health assessments and serum samples is the Army Medical Surveillance Activity. We have Air Force service specific repositories for environmental health data, theater surveillance data, and patient records. The Air Force has physicians and epidemiologists to monitor deployment related illnesses and injuries, and to study the data for potential causes to any conditions that may arise. The men and women of the United States Air Force deserve nothing less.

RECRUITING AND RETENTION

14. Senator COLLINS. Secretary White, Secretary Johnson, and Secretary Roche, waging the war against terrorism has required significant resources. The recent build-up in the Persian Gulf has also placed a strain on funding. It is my understanding that later this year, the Department of Defense will be submitting a supplemental appropriations request to cover some of these costs. However, I am becoming increasingly concerned about the toll being taken on the men and women serving today. Admiral Clark has indicated that half of our fleet is currently deployed, a significant jump from normal operations. I am sure that the other Services are in a similar situation. How long can we operate at this high rate before we start seeing negative impacts on our recruiting and retention? How are each of you managing military personnel to deal with this issue?

Secretary WHITE. Currently, the Army is having no problem meeting its annual accessions requirements and quality goals and anticipates no problems in the future, despite the current operational tempo and deployments. If we see a drop in enlistment, we will reassess our recruiting strategy and make appropriate adjustments.

It is difficult for us to determine retention trends at this time; however, studies by RAND and the Army Research Institute show that first deployments have a positive impact on the soldier's desire to stay in the Army, but subsequent and repetitive deployments have a negative impact on the soldier's desire to stay in the Army. A fall 2002 survey of military personnel shows that "amount of time away from my family" was one of the leading reasons given by soldiers who leave the Army.

We are managing critical military personnel skills through our stop-loss and stop-move programs. We have implemented these programs through precision management and executed them incrementally based on the changing operational environment since September 11, 2001.

Secretary JOHNSON. Despite long deployments and the extremely arduous duty required of sailors over this past year, we have not yet observed a negative effect on retention, and the retention successes we are enjoying have permitted us to continue reducing our accession goals. Should it become necessary for us to continue extending deployments, and should longer deployments become routine, we would expect this to have a negative effect on recruiting and retention.

Studies following Operation Desert Storm suggested that deployments exceeding eight months resulted in significantly lower reenlistment rates, particularly for married sailors and those in relatively sea-intensive occupations (2 percentage point drop for sailors overall, 7 percent for married sailors, and 3.4 percent for those in sea-intensive occupations).

However, those studies also showed that if long deployments were not routine, but were associated with "morale boosting crises," such as the present situation we are facing, "these challenging and exceptional deployments are likely to yield higher retention than routine long deployments." Recent statistics support this finding. However, it is difficult to predict for how much longer we can extend deployments without the practice being perceived as "routine," thereby adversely impacting retention.

Navy recognizes that to continue extending deployments for sustained periods of time, will likely begin to adversely impact the current recruiting and retention successes we are enjoying. While our active strength level, with selective-augmentation by naval reservists, is sufficient to support mission requirements and force structure, we continue to monitor the situation closely to evaluate the recruiting and retention impacts of the current operational tempo. As situations evolve both in Operations Enduring Freedom and Iraqi Freedom, we anticipate that extended deployments will remain the exception, vice the rule; thereby limiting the potential adverse impacts on our recruiting and retention efforts.

Secretary ROCHE. The Air Force shares your concern about the current high tempo and the toll it is taking on our airmen. Our involvement in the numerous hot spots around the world has truly stretched our troops to the limit. We have tried to minimize that impact by employing our people in the most efficient manner pos-

sible for these contingencies. One of our greatest strengths continues to be the quality and dedication of our Air National Guard and Air Force Reserves troops. When combined with our active duty and civilian force, these troops help spread our commitments throughout the "Total" force. Our Expeditionary Air Force concept has also served us well during these times of high tempo. That is not to say that it has resolved the problems associated with our high tempo, but it has provided the foundation from which to build a model to minimize the impacts.

Your question concerning how long will we be able to operate at this rate before we begin to feel an impact on recruiting and retention is a good one. While we cannot say definitively how long we can sustain this rate without an impact, current data indicates positive trends in both recruiting and retention. Exit surveys show that deployments alone do not play a major role in a member's decision to separate when compared to other factors such as compensation and the availability of civilian jobs. We have worked very hard with your support to ensure our airmen are duly compensated for the work they do for our great Nation. Our hope is that these trends continue and that we will be able to keep the best and brightest members of our Air Force in uniform. Recruiting efforts have also responded well to your committee's continued support. Our recent increases in recruiter strength and marketing efforts have had a significant impact. We continue to attract the finest of America's youth from all walks of life.

While we are currently doing well in these areas, we do not want to build a false sense of security. Our assumption is that if these high tempo rates were to continue for an extended period of time, it would ultimately begin to have a negative impact on our troops and a detrimental impact on our ability to recruit and retain the forces needed to meet the many demands placed on our Air Force.

"GO-PILLS"

15. Senator COLLINS. Secretary White, Secretary Johnson, and Secretary Roche, I have some concerns about the usage of amphetamines by our military. As part of the proceedings regarding last year's friendly fire bombing of Canadian troops in Afghanistan, the use of these so-called "go-pills" has been spotlighted. It is my understanding that these drugs are administered directly by military physicians, and that pilots are monitored very closely during their use. Given the intense supervision given to pilots and their flying hours, I can understand how the Air Force can manage the use of these drugs. However, for military personnel operating on land or at sea, supervision becomes more of an issue. Are these drugs distributed to non-pilots? If so, what controls are in place to ensure that they are not abused? Are there adequate studies regarding their effects on performance?

Secretary WHITE. Dexedrine, commonly referred to as "go-pills," is not used by anyone in the Army other than aviators. It has been a long-standing Army policy to maximize the use of non-pharmacological countermeasures to fatigue such as sleep/wake cycles in operational plans. A query of the Pharmacy Data Transaction Service database for prescriptions to active duty Army soldiers revealed an average of two Dexedrine prescriptions a month over the last 18-month period. Further investigation revealed that personnel at Fort Rucker used these prescriptions for flight training purposes.

Army aviators will use pharmacological countermeasures only in extreme circumstances. The Army has long studied various stimulants and is most comfortable with the benefits and side-effect profile of Dexedrine for Army aviators. After other countermeasures have been exhausted, and the commander has decided conditions warrant its use, the flight surgeon may use 2.5, 5, or 10 milligrams of Dexedrine up to a maximum of 30 milligrams in a 24-hour period.

The decision to use stimulants is the commander's, but is made in concert with appropriate medical and safety counsel. For example, within the U.S. Special Operations Command (USSOCOM), a policy letter signed by the commander directs that "the utilization of drugs such as amphetamines, or the application of medical procedures, such as 'blood doping,' to enhance or extend performance is strictly forbidden without the approval of the Commander, USSOCOM." To date only the 160th Special Operations Aviation Regiment has applied and received approval for a performance-enhancing drug protocol for pilots. In this protocol, the use of Dexedrine requires approval from the first general officer in the operational chain of command after a request from the battalion or air mission commander and the flight surgeon.

Secretary JOHNSON. There is no authorized use of "go pills" for any non-pilots.

Secretary ROCHE. While I cannot comment on Navy and Army policies, Air Force policies currently only permit the use of "go-pills" by one or two-seat fighter/bomber aircrew members and by U2 reconnaissance pilots. The policies would include a

small group of F–15E Weapons Systems Officers, who are covered under the same controls as pilots. There are no USAF policies that permit the distribution of "go-pills" in ground personnel. In fact, the Air Force Special Operations Command restricts "go-pill" use outside of the policies I've previously mentioned. With respect to the use of Dexedrine by Air Force pilots, there is a considerable body of scientific literature over the last 60 years, dating back to World War II, which supports the safety, efficacy, and performance benefits to be gained from the use of small doses of dextroamphetamine in extended duration air operations. I am confident that our fatigue management system, which includes such pharmaceuticals, is scientifically sound, voluntary, and very well controlled.

QUESTION SUBMITTED BY SENATOR ELIZABETH DOLE

CUTS IN IMPACT AID

16. Senator DOLE. Secretary White, Secretary Johnson, and Secretary Roche, during my visits recently to several North Carolina bases I listened to commanders, enlisted personnel, and military spouses. In addition to concerns about pay and quality housing, one of the themes I heard repeated had to do with making sure that the children of the men and women who are dealing with repeated deployments are getting a quality education in adequately funded schools. That brought the subject around to Impact Aid and the cuts that have been made in the fiscal year 2004 budget. If we ask the men and women of our armed services to go into harms way, they need to know that we are doing everything to make sure that we are taking care of their families. How can we possibly justify the cuts that have been made in Impact Aid funding?

Secretary WHITE. Impact Aid funds are an important source of Federal income for school districts that educate federally-connected children and help to ensure military children are provided quality education. The Impact Aid program is a U.S. Department of Education (DoED) function and responsibility. The Army supports the DOD position that Impact Aid funding and management is correctly positioned within DoED. The Army was not consulted by either DoED or the Office of Management and Budget in the formulation of this portion of the President's budget for fiscal year 2004. The Army strategy is to continue to work closely with DoED and DOD to find solutions to Impact Aid's persistent underfunding. Through our School Liaison Services program, we are keeping commanders and parents informed about the importance of completing the required Federal forms so school districts receive the Impact Aid allocation for each military-affiliated student.

Secretary JOHNSON. Education issues for the children of our active duty personnel are important to the Navy and I recognize the significance of Impact Aid funds. They are an important source of Federal income for school districts that educate federally connected children and help to ensure military children are provided quality education. The Impact Aid program, however, is a DoED function and responsibility. The Navy plays no role in the development or determination of Impact Aid and was not consulted by either DoED or the Office of Management and Budget in the formulation of this portion of the President's budget for fiscal year 2004.

Secretary ROCHE. We view adequate funding for schools as one of the most important quality-of-life issues for our families with school age children. We are very gratified that Congress has supported requested funding levels for the operation of our DOD dependent schools overseas and within the United States. Impact Aid is certainly an important ingredient in guaranteeing education quality for our children who attend schools within the United States. The Air Force has not recommended any changes to the Impact Aid program.

QUESTIONS SUBMITTED BY SENATOR CARL LEVIN

SHIP RETIREMENTS

17. Senator LEVIN. Secretary Johnson, this budget includes cutting the Navy fleet size below 300 ships in fiscal year 2004. At a time when we are deploying the fleet more and asking our people to spend greater periods of time away from home, this would appear to be moving in the wrong direction. Will the Navy be able to sustain its normal peacetime deployments at these lower fleet sizes without breaking the operating tempo goals that establish how frequently, and for how long, sailors will be expected to be absent from their families?

Secretary JOHNSON. The Navy will be able to sustain its normal peacetime deployments without breaking operating tempo goals. The CNO is committed to his per-

sonnel tempo guidelines, and the Navy has sufficient ships to meet its commitments within these guidelines. The Navy has commenced a comprehensive review of our forward deployment responsibilities, and operational and personnel tempo guidelines are major factors in this review. Additionally, Navy initiatives such as Sea Swap and the Fleet Response Concept are projected to provide forward, ready, and employable forces where and when needed—both designed with personnel tempo goals in mind.

ARMY FORCE STRUCTURE

18. Senator LEVIN. Secretary White, a recent press article quoted General Pace as saying that the Joint Requirements Oversight Council is reviewing a recommendation that would reshape the Army's force structure from 10 more specialized divisions to 10 identical divisions that could be deployed to contingencies on a rotating basis. What is your view of that concept?

Secretary WHITE. I do not think the Army will ever have 10 identical divisions. There will always be a need to maintain some level of specialization that will not be required across the total force. However, the Army intends to field interchangeable, general-purpose forces with common core capabilities through the Objective Force, beginning with initial operating capability of the first brigade-sized unit of action by 2010. In the near- to mid-term, the Army will meet overseas presence and rotation requirements through tailoring current forces in accordance with combatant commander requirements.

Today's Army comprises a robust mix of specialized divisions: airborne, air assault, light infantry, infantry, and armored/mechanized. Each type of division is optimized to provide a unique combination of capabilities, but is also specifically designed for rapid reorganization to accomplish a specific task or mission referred to as "task organizing." Task organization ensures the force contains the appropriate mix and quantity of combined arms to accomplish assigned overseas presence and rotational missions in accordance with the combatant commander's intent and concept of the operation.

Reducing or eliminating the distinctions between heavy and light forces is a fundamental objective of Army transformation. Objective Force units are being designed to be strategically responsive and dominant at every point across the full spectrum of operations. In the future, the Objective Force will possess an organic capability to conduct vertical envelopment (airborne) and air assault in both independent actions or as complementary maneuver in support of committed forces. The Army continues to assess and adjust the configuration of the unit of action and unit of employment to best support the emerging needs of the combatant commanders. The first unit of action begins fielding in 2008 and will achieve its initial operating capability this decade.

19. Senator LEVIN. Secretary White, is there no longer a role for specialized divisions such as the airborne and air assault divisions?

Secretary WHITE. Airborne and air assault operations are a relevant and necessary part of the mix of capabilities the Army provides to the geographic combatant commanders. Operations in Afghanistan and potential operations in Iraq require the unique skills and flexibility inherent in the airborne and air assault divisions. The capabilities necessary to conduct horizontal and vertical envelopment missions are valid requirements that support the full spectrum of joint military operations.

Executed rapidly, airborne and air assault operations provide positional advantage, achieve surprise, overcome difficult terrain, expose enemy capabilities to destruction throughout the joint operational area, and block, isolate, or otherwise dislocate enemy forces.

ACTIVE/RESERVE COMPONENT MIX

20. Senator LEVIN. Secretary White, Secretary Johnson, and Secretary Roche, it is clear that many of our Reserve and National Guard units and individuals are being taxed by the current level of commitments. It may well be that the Department should adjust the roles and functions assigned to each component appropriate for this new strategic environment. Do you all believe that DOD should adjust the roles and functions assigned to each of the active, Reserve, and National Guard components? If so, what changes, if any, do you believe are necessary? What are your plans for dealing with this issue?

Secretary WHITE. The Army is aware that many of our soldiers, from both the active and Reserve components, are being taxed by our current level of commitments

as we pursue our assigned missions in support of the defense strategy, which includes the war on terrorism and homeland defense. The current size, mix, and roles of the Army's components were established under a different set of conditions than what the force is now operating under and what we expected to operate under in the future. Our participation this past year in defense planning on operational availability has helped identify potential changes in the mix and role of our Reserve components. Our participation in the upcoming DOD study on active and Reserve component mix will assist the Army in the implementation of the changes necessary to meet the Army's requirements in the defense strategy while also reducing burden on all of our soldiers.

Additionally, for the Program Objective Memorandum 2004–2009, over 19,500 spaces were programmed for change within the Active, Guard, and Reserve Force structure. Since fiscal year 2001, the Army has activated or has programmed to activate through fiscal year 2009, a total of 68 active, 102 National Guard, and 85 Reserve units that fall into these high demand categories: aviation, chemical, civil affairs/psychological operations, and military police. The enhanced force capabilities address the most urgent needs.

Secretary JOHNSON. While the current level of commitment is certainly taxing both active and Reserve personnel of all Services, the Naval Reserve has not been overused.

The roles and functions mismatches that burden some of the other Service Reserve components are not as prevalent in the Navy/Naval Reserve mix. The Navy has worked hard to integrate reservists into the daily business routine of the overall Navy and we need not activate large numbers of reservists to go to war.

Lessons learned post-September 11 have suggested a need to adjust Navy force mix in the Naval Coastal Warfare (NCW) mission area. NCW is a mission that is currently resident only in the Naval Reserve. The commencement of the GWOT led us to the conclusion that we need to increase the size of our NCW forces. We have made a conscious effort to buy active duty NCW capabilities to meet the increased operational demand. These forces will not replace, but will reinforce the capability we already have in the Naval Reserve.

In June 2002, ASN(M&RA) and VCNO chartered an effort to develop a 21st century vision for a fully integrated Active and Reserve Naval Force. This effort is exploring Active/Reserve Force mix alternatives and is ongoing under the tutelage of Navy's Total Force Flag Steering Group. Active duty and Reserve officers are fully engaged in appropriately shaping the Navy of tomorrow and will continue working to bring this effort to completion.

Secretary ROCHE. The entire Department of Defense is currently looking at all the emerging requirements of the new National Military Strategy which have been given such great impetus by the events of September 11. In the Air Force, we have made and will continue to make changes to our force mix (the ratio of a mission in the active and Reserve components) and force structure (how those forces are based and organized) as new needs emerge to support that strategy. The Air Reserve Component (ARC), both Reserve and Guard, have made huge contributions to our successes in Operations Enduring Freedom and Noble Eagle. They have stepped up to the challenges just as our active component has. Though the active and Reserve components have both been stressed in these endeavors, our risk management has spread that stress fairly equitably.

We do have several mission areas in which we are making adjustments to mitigate some of those stresses to the Reserve component. For example, the Air Force Reserve is transferring 15 combat search and rescue aircraft, a low-density/high-demand asset, to the active component. In turn the Reserve unit will convert to KC–135 R-model tankers, a mission that has proven very successful in the Reserve component. The ARC will also be transferring 14 C–130 R-models to our Air Force Special Operations Command to meet the post September 11 requirements. These adjustments will allow the active and Reserve components to maintain the steady-state requirements without overusing our invaluable Reserve component.

ARMY MODERNIZATION

21. Senator LEVIN. Secretary White, in this year's budget request the Army has made a clear statement as to acquisition priorities, shifting $2.3 billion in fiscal year 2004 and $22 billion across the fiscal year 2004–2009 FYDP from the procurement of existing legacy weapon systems to the R&D and procurement of Objective Force systems. This was done by canceling 24 programs and restructuring another 24 more. This is on the heels of numerous such cancellations in prior years. While moving forward with transformation, until this year the Army had intended to balance

the risks in the transformation plan by recapitalizing and selectively modernizing the three heavy Army divisions and the Armored Cavalry Regiment of the counter-attack corps—forces which will continue to be needed for the next two decades. Now only two divisions of that corps will be modernized. How should we assess the risks in that strategy?

Secretary WHITE. The Army has conducted continuous reassessment of the risk associated with transforming the force in anticipation of its Future Combat Systems. At this time, given current transformation timelines, the Army believes that the risk it has taken is prudent. The continuous assessment of risk includes all Quadrennial Defense Review-defined risks, particularly the near-term operational, the future challenges, and the force management effects of programmatic offsets. We will continue to reevaluate these reductions each year and will readdress our risk as the situation warrants.

22. Senator LEVIN. Secretary White, I note that news reports indicate that the Army plans to deploy four heavy divisions and a cavalry regiment for a possible war with Iraq. Does modernizing only two of those over the next 20 years make sense?

Secretary WHITE. The Army made a conscious decision to decrease the modernization of the Counterattack Corps from 3⅓ divisions to 2 divisions. It was clearly the toughest decision in this budget. We were forced to terminate and curtail some modernization programs including the digitization of the Counterattack Corps in order to generate capital for Army transformation. The Army has accepted prudent operational risk in the mid-term to fund our transformation to the Objective Force. The Army has several means to mitigate the risk associated with this decision. We are on schedule to gain the initial operational capability of the first Stryker Brigade this year. The six Stryker Brigades, which we have planned, act as both a strategic hedge to allow transformation of our current forces and as a learning environment to train leaders and soldiers for our Objective Force formations. We have also accelerated the fielding of transformational technologies to enhance the warfighting capabilities of our deployed forces. We will be transforming units from our divisions into Objective Force formations by the end of this decade.

We made the judgment to curtail the modernization of the Counterattack Corps at two divisions after a careful balancing of operational risk, and the risk of not transforming, to provide the capabilities that the Army needs to meet the obligations of mid-term and long-term joint operations concepts. We are closely monitoring the current operational situation as we support the combatant commanders in the global war on terrorism, conduct homeland defense, and prosecute the long-term effort to defeat transnational threats to ensure the risk remains prudent. As current operations unfold, we will reexamine our risk assessment each year.

23. Senator LEVIN. Secretary White, how confident are you of meeting the 2010 initial operational capability date for the Future Combat Systems? Do you believe that the technologies will be mature enough to make a decision to go forward with system development and demonstration this spring?

Secretary WHITE. I am highly confident that we will meet the Future Combat System's initial operational capability in 2010. In the context of emerging changes to acquisition policy, we are working with DOD to develop an acquisition approach that supports our intent to provide an operationally effective initial capability to the Nation in 2010. To meet our timelines, we are adopting an approach that will enable the Army to adapt processes available in the commercial sector to accelerate maturation of technology and integration of systems. The use of the Lead Systems Integrator to assist the Army in the management and execution of this program has allowed us to leverage commercial practices to retain competition and integrate a broad range of solutions for the system of systems concept.

The Army is finalizing its evaluation of the technology within FCS as required by the Defense Acquisition Executive. The chief scientist of the Army chartered reviews of the technology by both government and independent experts. These assessments have been reconciled and Army leadership is reviewing the consolidated product. Upon approval, the technology maturity assessment will be forwarded to the Office of the Secretary of Defense for final endorsement. The Army foresees no issue that would preclude an affirmative technology maturity assessment at the systems development and demonstration decision point in May 2003.

24. Senator LEVIN. Secretary White, if you expect to begin fielding the Future Combat Systems in 2008 as planned, why do you believe it is so important to field the fifth and sixth interim Stryker Brigade Combat Teams in 2006 and 2007? Would you consider spending the $3 billion intended for those brigades for modernizing the remainder of the heavy counter-attack corps instead?

Secretary WHITE. The Army has established the correct balance through continuous reassessment of the approximate mix of Legacy, Interim, and Objective Forces needed to accomplish various mission sets. In order to sustain the ability to support forward deployed rotations and meet multiple requirements of the defense strategy, the Army has developed the appropriate number of highly mobile forces.

As the Army transitions to support the "1–4–2–1" defense construct, the Stryker Brigade is a force that fills critical gaps that enable combatant commanders to accomplish the defense strategy. Present Stryker Brigade fielding timelines will enhance the Nation's ability to fight and win the war on terrorism while deterring hostile nations with weapons of mass destruction and transforming. The transformation of four active component brigades to Stryker Brigades provides a rotational base with three of the brigades focused on the Pacific theater and one forward-based in Europe. The Stryker Cavalry Regiment will support the XVIII Airborne Corps' critical need for robust armed reconnaissance. The conversion of a Reserve component brigade to a Stryker Brigade is critical because it enhances the capabilities of the strategic Reserve, and homeland defense missions are better met. This will allow the Army to embed digital technology into the Reserve components that will facilitate future active and Reserve interoperability as part of the joint force.

Additionally, the conversion to six brigades focuses on every part of the Army: active and Reserve components, heavy and light forces, and U.S. and overseas based. Then, the ability to rotate the Reserve component Stryker Brigade into small-scale contingencies or enduring support and stability operation deployments in support of the global war on terrorism, Balkans, etc., allows a manageable operational tempo and deployment tempo for these capable units.

25. Senator LEVIN. Secretary White, do you intend to include any of the 48 canceled or restructured programs on any unfunded priorities list the Army would submit for congressional consideration this year?

Secretary WHITE. The fiscal year 2004 budget submission included 24 systems that were terminated. Based on lessons learned from the global war on terrorism, the Army reviewed ongoing operations and revalidated limited numbers for four systems that had been terminated during the preparation of the budget submission: Tactical Exploitation System (TES), M919 25 millimeter ammunition, Stinger Missile, and the Joint Tactical Terminal. As part of the budget submission, the Army also generated a list of critical unfunded priorities. Three of the revalidated systems were placed on this list—TES, M919, and Stinger. In all cases, the unfunded priorities procure systems to meet an identified Army shortfall in the global war on terrorism.

The budget submission also included 24 programs that were restructured. Of these 24 restructured programs, four programs include elements that appear on the unfunded priorities list (Family of Medium Tactical Vehicles (FMTV), Javelin missile, second generation forward-looking infrared radar (FLIR), and Soldier Modernization Systems). The FMTV request would procure light medium tactical vehicles and medium tactical vehicles, the Javelin request would procure 720 command launch units for the Army National Guard, the second generation FLIR request would provide funds required to maintain the industrial base, while the Soldier Modernization Systems request would provide various soldier equipment to support the Army's Rapid Fielding Initiative for the global war on terrorism.

The Army may propose further changes to fiscal year 2004 investments pending lessons learned from current operations.

SCIENCE AND TECHNOLOGY FUNDING

26. Senator LEVIN. Secretary White, Secretary Johnson, and Secretary Roche, the fiscal year 2004 budget request reduces investments in critical S&T programs by more than $1 billion from fiscal year 2003 appropriated levels. It falls well short of the goal of investing 3 percent of the defense budget in S&T to support military transformation, despite the fact that the goal has been endorsed by the Defense Science Board, National Academy of Sciences, Quadrennial Defense Review, Congress, and even yourselves. In fact, by fiscal year 2009 it is programmed to fall to 2.4 percent of DOD's topline, not even including supplemental appropriations. How is this limited investment supportive of your goal to transform our military capabilities?

Secretary WHITE. To accelerate Army transformation, the Army has grown the S&T budget request every year since the Army Vision was announced in 1999. This represents a total of 38 percent growth in Army S&T since the fiscal year 2001 budget request. We have done this because we recognize the key role of Army S&T

in accelerating Future Combat Systems and other Objective Force capabilities. Over 98 percent of fiscal year 2004 S&T investments are focused on maturing and developing critical technologies to achieve Objective Force capabilities. S&T investments through fiscal year 2009 continue to increase, focused on transitioning technology to the warfighter faster.

Secretary JOHNSON. The overall Navy S&T portfolio is closely monitored to ensure consistency with, and support for, the Navy's Transformation Roadmap Sea Power 21 pillars, including Sea Strike, Sea Shield, Sea Base, and FORCEnet. The fiscal year 2004 President's budget request contains several transformational initiatives, reflecting OSD and Navy leadership priorities. Examples of such transformational programs which are included in the Navy S&T budget request include:

- Joint Forces Command's experimentation program
- Unmanned Combat Air Vehicle
- Electric Power Technologies including 100 kilowatt free electron laser, and 36 megawatt superconducting motor
- Advanced Amphibious Assault Vehicle S&T requirements (Marine Corps)
- Advanced Multi-function Radio Frequency System
- Wide bandgap power devices
- Functional materials
- Hypersonic weapons
- Virtual at-sea training
- Project Morgan
- DC homopolar motor
- X-Craft
- Lightweight electrical energy sources (Marine Corps)
- Secure mobile wireless networking technology (Marine Corps)
- USMC Tactical Unmanned Ground Vehicle (TUGV)
- USMC Electric Technologies for Advanced Ground Vehicles
- Marine Corps Warfighting Lab experimentation

Navy understands the importance of identifying appropriate S&T projects and quickly delivering those new technologies to the warfighters. During Operation Enduring Freedom and Operation Iraqi Freedom, several S&T projects (thermobaric weapons, affordable weapons, and a knowledge web system) transitioned directly from S&T to the Fleet/Force, thereby demonstrating the current value of S&T programs.

Secretary ROCHE. The fiscal year 2004 President's budget requested amount of $2.2 billion is actually higher than the fiscal year 2003 appropriated amount of $1.8 billion for the Air Force S&T program and provides for the technology development essential for the Air Force vision of an Expeditionary Air and Space Force. We have taken the effects and capabilities required by the Air Force's Concepts of Operations and mapped them to the long-term challenges and short-term objectives identified in the congressionally-directed S&T Planning Review completed in February 2002. Our goal is to make the warfighting effects and the capabilities we need to achieve them the drivers for everything we do and this is especially true in our S&T program.

27. Senator LEVIN. Secretary White, Secretary Johnson, and Secretary Roche, what areas of research are you cutting back on?

Secretary WHITE. The Army regularly reviews S&T investments to ensure we maintain a balanced portfolio of basic and applied research and advanced technology development programs. We are not cutting back on research; we are increasing investments in those areas that will get us to the Future Combat Systems and the Objective Force sooner. Specifically, in basic research we have increased funding 18 percent compared with the fiscal year 2001 budget request for paradigm-shifting technologies such as nanoscience and biotechnology.

Secretary JOHNSON. While Basic Research (6.1) has benefited from the devolvement of a portion of the University Research Initiative program to Navy, there remain difficult choices in Applied Research (6.2) and Advanced Technology Development (6.3) funding to maintain the best possible portfolio.

In the face of the constrained budgetary environment, we made difficult choices in Applied Research (6.2) and Advanced Technology Development (6.3) funding to maintain a viable portfolio to fund transformational S&T at a rate we can afford.

We reduced funding for the Future Naval Capabilities (FNC)—designed to deliver new capabilities to the warfighter—in order to focus only on the highest priority projects within the 6.2 and 6.3 portfolio.

The following shows some of the primary FNC products that were reduced or not pursued in the fiscal year 2004 President's budget request:

- Low observable integrated deckhouse,
- Advanced estimate of sensor performance,
- Mission responsive ordnance,
- Limits of passive sonar, and
- Underwater surveillance data link network.

Secretary ROCHE. The fiscal year 2004 President's budget requested amount of $2.2 billion for the Air Force S&T program is actually higher than the fiscal year 2003 appropriated amount of $1.8 billion. This increase comes primarily as a result of In-House Laboratory Independent Research, High Energy Laser, and High Performance Computing Modernization programs that were devolved to the Air Force by the Office of the Secretary of Defense. We have worked hard to maintain a balanced S&T portfolio and, if you discount these programs and compare only traditional S&T funding, our fiscal year 2004 President's budget request sustains a level S&T investment from fiscal year 2003 to fiscal year 2004.

WORKFORCE

28. Senator LEVIN. Secretary White, Secretary Johnson, and Secretary Roche, it is clear that government labs, especially defense labs, are finding it difficult to attract and retain the finest scientific and engineering technical talent. Congress has attempted to provide the directors of your laboratories with the ability to establish demonstration programs to address workforce issues, and to "directly hire" needed technical talent (avoiding standard civil service red tape) to be more competitive with the private sector, but these have not been aggressively utilized by the Services. How are you planning to address your science and engineering workforce crisis?

Secretary WHITE. The service laboratories are now facing other challenges from within the Department. A Federal Register announcement has been published which may have consequences for the laboratories, possibly compromising progress on the previous lab demonstrations and requiring the labs to adopt, with union concurrence, so-called "best practices." These "best practices" were personnel rules adopted from all of the current personnel demonstrations, but which may not be tailored to the specific needs of the various labs. In addition, the Department is attempting to develop a "one size fits all" new personnel system based on these "best practices," which will apply to all of its employees, but which may not address the specific needs of the labs. Until these OSD initiatives sort themselves out, it remains unclear how we will address the personnel requirements of the labs.

Secretary JOHNSON. Civilian workforce issues are of great concern to the Department of the Navy, and have been the subject of several recent studies:

- the August 2000 Civilian Workforce 2020: Strategies for Modernizing Human Resources Management in the Department of the Navy;
- the July 2001 Vice Chief of Naval Operations (VCNO) Task Force report on Civilian Manpower & Personnel Management; and
- the May 2002 tri-Service study carried out under the auspices of the Naval Research Advisory Committee (NRAC) study called Science and Technology Community in Crisis.

All three of these produced recommendations for improving the Department of the Navy's civilian workforce, some of which have already been implemented.

Your concerns about the crisis in our science and engineering task force were validated in the NRAC study which was chartered by the Director, Defense Research and Engineering. Its report emphasized that the viability of the Defense Department's S&T capability is threatened by increasing losses of key technical personnel, insufficient levels of funding for facility and equipment modernization, and bureaucratic impediments that often produce counter-productive results in the research environment.

The NRAC report emphasized, in particular, the serious demographic challenge the labs face over the next several years, when retirements are expected to claim much of their experienced science and engineering talent. Replacing that talent is a top priority, we are already taking steps to improve the labs' ability to recruit, hire, and retain the best science and engineering personnel. The Navy has been working with the DOD in analyzing all human resources practices in the laboratory demonstration projects under DOD's Best Practices Initiative and we are working together to provide the results of this analysis as best practices across the entire laboratory community rather than just one lab experiencing independent success.

Congressionally-authorized personnel demonstration projects have improved our ability to recruit and retain some of the best and brightest technical talent in the market, but they do not completely solve our lab personnel problems. For example,

the pilot projects do not provide all the hiring flexibilities we need because we still cannot get the most innovative programs through each local union which we are required to do under the demonstration project authority.

Building on the success of these congressionally-authorized personnel demonstration projects, the Administration recommended legislation for a DOD National Security Personnel System (NSPS) this year. We strongly support this legislation which the House-passed version in H.R. 1588 largely reflects. This legislation takes the labs out of a demonstration project status and allows permanent use of best practices flexibilities in the labs as well as the rest of the Department by providing among other things, the basis for a fair and flexible system of civilian personnel management with critical flexibilities in hiring, assignment, advancement, and reduction in force. In addition, it provides the opportunity for a new labor-management relationship that is critical to implementing NSPS in a timely manner and a streamlined appellate system that is fundamental to implementing a workable pay for performance system. The legislation would also permit the temporary hiring of older Americans and remove the pay penalty for hiring annuitants that would allow us to retain the mentoring capability and institutional knowledge of our best talent.

Another example is an initiative by the Office of Naval Research specifically aimed at revitalizing the S&T workforce in our labs and centers. This collaborative effort, which also includes academic partners, has a number of components. For example, it provides scholarships at participating universities in return for obligated service in our labs. It also envisions retraining retired military technology officers and bringing them back into the labs where their valuable experience as warfighters can be infused into our research efforts.

Secretary ROCHE. The Air Force Research Laboratory (AFRL) has implemented a successful personnel demonstration project, which is in its sixth year. It addresses many workforce issues, such as pay inequalities and workforce refreshment. As a direct result, we have seen great improvement in the laboratory workforce morale and retainment.

With respect to Section 342 of the National Defense Authorization Act (NDAA) for Fiscal Year 1995 and Section 1114 of the NDAA for Fiscal Year 2001, additional initiatives have been implemented, while others, such as direct hire authority for college graduates, are still being evaluated by the Department of Defense. In the interim, AFRL and the Air Force Deputy Chief of Staff for Personnel worked together to allow AFRL to utilize the Federal Career Intern Program.

To fully address the S&E workforce crisis, the Air Force has established the first-ever Scientist and Engineer Functional Manager within the office of the Deputy Assistant Secretary of the Air Force (Science, Technology, and Engineering) to oversee the health and development of the workforce. In addition, we have established several military and civilian recruitment, retention, and bonus programs to address critical career field needs. An example of one recent success story is that a large percentage of military scientists and engineers have accepted the Critical Skills Retention Bonus.

In March 2002, the transformation of the entire DOD civilian personnel community was initiated as the Under Secretary of Defense (Personnel and Readiness) directed the establishment of the DOD Human Resources Best Practices Task Force. The Task Force, consisting of representatives from both the human resources community and the functional community, including Air Force and defense laboratory representatives, reviewed initiatives that had been subject to testing and evaluation in our personnel demonstration projects. After careful consideration of the "best practices," they developed a personnel system to best meet the needs of the Department, the National Security Personnel System.

29. Senator LEVIN. Secretary White, Secretary Johnson, and Secretary Roche, what new authorities, if any, do your lab directors need to face this crisis?

Secretary WHITE. The labs continue to require authorities to hire top talent at market rates, in some cases well above current Senior Executive Service pay scales. In addition, they also should have authorities to more easily remove employees at the bottom of the performance scale, allowing the labs to raise the "quality bar." These two authorities are the most critical for improving the quality of the workforce.

Secretary JOHNSON. Enactment of the House-passed version of the National Security Personnel System in H.R. 1588 is critical to obtaining the widest possible flexibilities to enable the labs and centers to recruit and retain the best and brightest.

Secretary ROCHE. For the Air Force to move forward in the coming century, we need the ability to use all the flexibilities proposed in the Best Practices demonstration project, not only for the laboratory workforce, but across all Air Force functions. In addition, The Air Force Research Laboratory Commander needs the authority to

implement the flexibilities contained within Best Practices to meet mission and workforce demands and to adequately address the Air Force scientist and engineer workforce crisis.

STANDOFF CONVENTIONAL EXPLOSIVE DETECTION

30. Senator LEVIN. Secretary Johnson, the attack on the U.S.S. *Cole* demonstrated a significant force protection vulnerability. Since the October 2000 attack on the U.S.S. *Cole*, what technological advances have been made to help prevent a repeat of this tragic event?

Secretary JOHNSON. The Office of Naval Research has developed several technologies to help provide force protection to U.S. ships including:

- Flare launcher on a .50 Caliber machine gun mount to send warning shots at small boats;
- Running Gear Entanglement System to provide a 100m perimeter around a ship at anchor;
- Rapidly developed empirically validated models demonstrate new solutions for ship survivability. Model shows that use of stainless steel for hull material helps to reduce blast penetration;
- 360 degree periscope and related software;
- Microwave powered warning system which deters intruders by heating their skin; and
- Nuclear Quadrapole Resonance System for the detection of bulk explosives (RDX, PETN) in packages, mail pouches, or on personnel (manual scanning).

31. Senator LEVIN. Secretary Johnson, specifically, what investments has the Navy made to improve our ability to detect conventional explosives (not WMD) from standoff ranges?

Secretary JOHNSON. This is a challenging problem for which no good technical solution has yet been identified. ONR hosted a conference on standoff detection of conventional explosives that concluded that no stand-off (defined as >1Km) off-the-shelf detection technologies could be exploited within the next 18 months.

Planning for technology investment in this area is underway. ONR is collaborating with Air Force, Army, Navy Explosive Ordnance Disposal, and NAVSEA Indian Head experts (both government and contractor) to identify and exploit emerging technologies that may potentially be stand-off quality detectors. Additional proposals are being continually received and reviewed for merit. Much work is underway in detectors suitable for shorter range, including joint Navy/DARPA work in the nuclear quadruple resonance technology especially in combination with other standard techniques.

ARMY RESEARCH, DEVELOPMENT, AND ENGINEERING COMMAND

32. Senator LEVIN. Secretary White, the Army has begun to standup a Research, Development, and Engineering Command that will absorb the existing labs and research organizations (such as TARDEC) that currently are aligned with Army Major Commands (such as TACOM). How will this reorganization affect the reporting chains, mission, and funding levels at these organizations?

Secretary WHITE. Overall funding levels will not be affected by the reorganization. The Research, Development, and Engineering Command Center Directors will report to the Commander, Research, Development, and Engineering Command. The commanders of the Tank and Automotive Command, Communications and Electronics Command, and Aviation and Missile Command continue to report to the Commander, Army Materiel Command.

33. Senator LEVIN. Secretary White, will there be any net loss of personnel from the affected organizations?

Secretary WHITE. The realignments within the affected organizations will be done without any net loss of personnel.

34. Senator LEVIN. Secretary White, why is this reorganization a positive step, when it would seem to create a wider gulf between the technology developers and the organizations that typically make use of their innovations and products?

Secretary WHITE. Research, Development, and Engineering Command will establish synergy across the laboratories to speed technology transition to the developing and buying organizations—program executive offices. Each program executive office

will have a senior official responsible to ensure the technologies developed in the labs are satisfying essential warfighting needs. The Research, Development, and Engineering Command Agile Development Center's scientists and engineers will work directly with the combatant commands to establish a "reach-back link" to Army Materiel Command laboratory capabilities.

HIGH ENERGY LASER PROGRAMS

35. Senator LEVIN. Secretary Roche, the OSD has proposed devolving all high energy laser S&T programs to the Air Force. This program was established by statute as a joint program, with OSD management. There is great concern that the joint program that has been established will be subsumed by Air Force interests in high energy lasers. Will the Air Force be requesting a change in statute to support and legalize the devolvement?

Secretary ROCHE. The devolvement of programs to the Air Force was initiated by the Office of the Secretary of Defense. The Air Force has no plans at this time to request a change in statute, but we are working to ensure that the programs transferred to the Air Force continue to advocate the broader multiple military objectives inherent in these programs. We are currently developing a Memorandum of Agreement between the Deputy Under Secretary of Defense (Science and Technology) (DUSD (S&T)) and the Deputy Assistant Secretary of the Air Force (Science, Technology, and Engineering) on management of the High Energy Laser Joint Technology Office. We plan to have DUSD (S&T) continue to function as the Senior Civilian Official and as Chair of the Technology Council in accordance with the current statute.

36. Senator LEVIN. Secretary Roche, how will the Air Force retain the joint nature of the program as intended by Congress?

Secretary ROCHE. The Air Force does not plan to make any changes to the High Energy Laser Joint Technology Office (JTO) process beyond that required by changes in the funding source. Representatives from the other Services and defense agencies will still participate in the JTO. Proposals will continue to be solicited from them, as well as from industry and academia as before, and these proposals will continue to be evaluated by the same joint structure. The Air Force will not increase its participation in the JTO or in the various working groups that support the JTO. The Technology Council, chaired by the Deputy Under Secretary of Defense (Science and Technology) and comprised of the Service and Defense Agency Science and Technology Executives, will continue to be the principal oversight body. The JTO will not be a part of the Directed Energy Directorate of the Air Force Research Laboratory, but will continue as a separate organization. The JTO Director will report to the Deputy Assistant Secretary of the Air Force (Science, Technology, and Engineering).

37. Senator LEVIN. Secretary Roche, how will the Air Force ensure that the programs continue to be funded at a sufficient level in future years given growing budget constraints?

Secretary ROCHE. The three High Energy Laser JTO program elements were devolved to the Air Force along with out-year funding. These programs will be protected as much as possible from future budget reductions. It is our plan at this time to use the Deputy Under Secretary of Defense (Science and Technology) Technology Council to address appropriate funding levels for this program.

38. Senator LEVIN. Secretary Roche, is there any OSD guidance on the appropriate level of funding for these programs?

Secretary ROCHE. The Air Force has not received any guidance from the Office of the Secretary of Defense with respect to the appropriate level of funding for these programs.

DEVOLVEMENT

39. Senator LEVIN. Secretary White, Secretary Johnson, and Secretary Roche, a number of S&T programs have been devolved to the Services from the OSD. There has been guidance from OSD regarding funding levels for these programs (including the JTO High Energy Lasers, High Performance Computing Modernization Program, and others) during the FYDP. There is concern that, if the Services are faced with resource shortfalls due to current operations or other expenses, these programs may become targets for reprogramming and could be used as sources of funding for

other Service priorities. Is there any guidance from OSD on protecting devolved programs from reprogramming actions?

Secretary WHITE. The devolved OSD programs have been assigned new program elements, which allow OSD and Congress to track the funding levels of these efforts.

Secretary JOHNSON. There is no such guidance. For the devolved programs, OSD guidance did note that consistent with oversight responsibilities, appropriate OSD staff will review execution plans and metrics prior to the start of each fiscal year, and at mid-year to determine future allocations.

The following funded requirements were devolved from OSD to Navy S&T during the fiscal year 2004 budget development cycle:

	[In millions of dollars]
University Research Initiatives	70.7
In-House Laboratory Independent Research	2.1

Although special protection has not been assigned to these programs, Navy will execute these programs in accordance with R–2 budget justification exhibits which support the fiscal year 2004 President's budget request. These programs did receive proportionate reductions (approximately −2.0 percent) without prejudice during the Navy fiscal year 2004 budget development cycle; these cuts are reflected in the President's budget request.

Secretary ROCHE. The Air Force has not received any guidance from the Office of the Secretary of Defense with respect to protecting devolved programs from reprogramming actions.

40. Senator LEVIN. Secretary White, Secretary Johnson, and Secretary Roche, will you ensure that these programs are protected to preserve OSD and congressional intent with regards to the investment levels in these critical research and technology areas?

Secretary WHITE. Yes. We have no plans to change either the intent or investment levels in these programs.

Secretary JOHNSON. The following funded requirements were devolved from OSD to Navy S&T during the fiscal year 2004 budget development cycle:

	[[In millions of dollars]
University Research Initiatives	70.7
In-House Laboratory Independent Research	2.1

Although special protection has not been assigned to these programs, Navy will execute these programs in accordance with R–2 budget justification exhibits, which support the fiscal year 2004 President's budget request. These programs did receive proportionate reductions (approximately −2.0 percent) without prejudice during the Navy fiscal year 2004 budget development cycle; these cuts are reflected in the President's budget request.

It is noted that OSD continues to maintain joint oversight for these programs, before and after the fiscal year 2004 devolvement.

Secretary ROCHE. The In-House Laboratory Independent Research, High Energy Laser, and High Performance Computing Modernization programs devolved to the Air Force by the OSD were devolved along with out-year funding. These programs will be protected as much as possible from future budget reductions. It is our plan at this time to work with OSD to address appropriate funding levels for these programs.

COORDINATION WITH DARPA

41. Senator LEVIN. Secretary White, Secretary Johnson, and Secretary Roche, the DARPA now executes over 25 percent of the total DOD S&T budget. How do you work with DARPA to ensure that they support your mission areas and complement your S&T programs?

Secretary WHITE. The Army looks to DARPA to invest in high-risk, high-payoff technologies that might give us significant increases in future warfighting capabilities. Through the years, there have been many instances of the Army transitioning technologies, components, and systems from DARPA that support Army mission areas. Frequently, however, these transitions were not smooth.

The FCS program was conceived with a number of important goals. One was to use DARPA's innovative thinking and procurement strategies to help the Army transform on a very rapid timeline. Another was to lay a foundation for achieving smoother, faster transitions of technologies from DARPA to the Army. We believe

that the key to achieving both of these goals was establishing a partnership early in the research and development cycle.

The Army/DARPA FCS memorandum of agreement (MOA) established a partnership that has served us well over the past 3 years. We have achieved the key program objectives in support of the FCS Milestone B decision and the products of this partnership will be seen in FCS Increment I. We are now in the process of negotiating a new FCS MOA with DARPA for fiscal year 2004 through fiscal year 2006, focusing on selected enabling technologies that will continue to increase the capabilities of FCS and the Objective Force through the spiral development process.

The Army continues to cultivate its relationship with DARPA and partner with them to achieve unprecedented leaps in areas beyond ground combat. We are pursuing breakthroughs in unmanned aviation through an established partnership on the Unmanned Combat Armed Rotorcraft program and a proposed partnership on the A–160 Hummingbird. Based on our successes with FCS, I am confident we will continue using this approach for future programs that require risk-taking, innovative approaches.

Secretary JOHNSON. Our investment portfolios are not built in isolation. The defense reliance process integrates the Services' S&T programs while preserving the healthy diversity of vision and approach that has given us the technical agility we enjoy today. Our relations with DARPA are excellent and productive. Much of the Office of Naval Research's basic and applied research investment is designed with a view to handing scientific advances over to DARPA for further development and exploitation. The Unmanned Combat Air Vehicle program is an excellent example of this kind of collaboration. We are working closely with DARPA on wide band gap semiconductors to support the radar, communications, and electronic warfare systems of the future, including the advanced multifunction radio frequency concept.

Secretary ROCHE. The relationship between the Air Force and DARPA continues to be strong with the Air Force acting as agents for a number of DARPA technology programs. This relationship helps focus both the Air Force and DARPA on technologies that provide future capabilities that are relevant to the warfighter. In addition to executing DARPA technology programs, the Air Force participates in the defense reliance process to coordinate those programs that are of mutual interest, but not ones that we are executing for DARPA. DARPA technology investments are important to the Air Force and we strive to maintain cognizance of their research programs to harmonize efforts and eliminate duplication.

42. Senator LEVIN. Secretary White, Secretary Johnson, and Secretary Roche, are there specific technology development goals supporting mission areas in your Service in which DARPA could play a larger role?

Secretary WHITE. The new FCS MOA for future Army/DARPA collaboration will be finalized after the FCS Milestone B decision in May 2003. At that time, the Army and DARPA will assess capability gaps between FCS Increment I and objective capabilities where new technologies can offer a solution. From that set, we will determine the best mix of technology investments in which the Army should lead and those in which a partnership with DARPA makes the most business sense.

In laying the groundwork for the new MOA, we already have identified three key areas where we believe DARPA can help the Army. They are (1) find the enemy, (2) autonomy with intent, and (3) affordable survivability.

"Find the Enemy" seeks to provide technologies to defeat camouflage, concealment, and deception and to exploit situational awareness through improved sensors, assured communications, intelligent decision aids, and data fusion.

"Autonomy with Intent" focuses on improving the ability of unmanned systems to function while minimizing soldier workload and required attention/interaction.

"Affordable Combat Identification" aims to increase force survivability by improving identification of battlefield entities for intermingled forces in high OPTEMPO operations in complex terrains using cost-effective approaches.

Each of these areas presents real technical challenges that will require extremely innovative thinking and the ability to invest significant resources to demonstrate viable solutions. All are important today and will be even more important in the future Objective Force.

Secretary JOHNSON. The Navy has been working closely with DARPA to coordinate S&T efforts. There are numerous areas where S&T Program Officers wear both ONR and DARPA hats thus leading to highly leveraged cooperative efforts. Wide band gap semiconductor developments that enable the advanced multi-function radio frequency system for Navy ships is a good example.

DARPA and ONR work together to identify DARPA programs and projects that have high applicability to naval requirements and utilize ONR's Future Naval Capabilities program to enable transition. Besides identifying DARPA programs with

Navy interest, ONR technologies addressing DARPA development needs, such as small atomic clocks, make DARPA's efforts more likely to succeed. Recently, DARPA has initiated a Service Day activity, inviting S&T, requirements, and acquisition members of the Services to briefings on their programs in order to get better exposure of their efforts. The first Navy-DARPA Service Day will be conducted in early May 2003 in the areas of electronic warfare, communications, and information assurance.

Secretary ROCHE. The most important area in which DARPA could increase their technology development efforts is in space access and other space-related efforts. We have seen indications that they are already planning for a larger space technology investment and we certainly encourage this. Another area of particular interest to the Air Force is information technology. DARPA already has a robust investment in this area, which the Air Force would like to see continued and, perhaps, even increased.

FOREIGN STUDENT INVOLVEMENT IN DOD-FUNDED RESEARCH

43. Senator LEVIN. Secretary White, Secretary Johnson, and Secretary Roche, what policies and directives currently control the participation of foreign students in Service-funded research programs?

Secretary WHITE. The Army requires contractors performing basic research to abide by Title 8, United States Code, Section 1324a, which makes it unlawful to employ unauthorized aliens and sets forth the requirements for documenting and attesting that aliens are not unauthorized, as well as 8 Code of Federal Regulations 274a(2), which sets forth the process for the verification of employment eligibility of aliens. As long as the contractor or university complies with the United States Code and Code of Federal Regulations alien employment requirements, and the foreign student is eligible for employment, there are no restrictions on their working on unclassified basic research.

Additionally, we comply with the Department of Defense grants and agreements regulations. All Army basic research is unclassified and is generally published in peer reviewed, open literature.

Secretary JOHNSON. Generally, student participation in a Service-funded research program occurs at an institution of higher education (IHE); the IHE receives an award from the Service to conduct research (typically a grant) and then chooses which students participate in the research. Student participation is generally not limited by citizenship unless a security clearance is required for the uncommon instance of a classified research program at an IHE.

Some students participate in research at Service laboratories via various intern/summer programs. Security clearance requirements generally limit participation in these programs to citizens or, in some cases, permanent residents.

Small Business Administration policy governs acceptance and prohibition on issues such as these. If the individual has a "green card" or is a legal resident, he/she is permitted to work on an Small Business Innovation Research project.

Secretary ROCHE. The baseline document that the Air Force uses to provide policy and direction for foreign students in funded research programs is the National Security Decision Directive (NSDD)–189, entitled "National Policy on the Transfer of Scientific, Technical and Engineering Information." This directive establishes national policy for controlling the flow of science, technology, and engineering information produced in conjunction with federally-funded fundamental research at colleges, universities, and laboratories. Basically, the NSDD–189 policy, to the maximum extent possible, is that the products of fundamental research remain unrestricted. If it is determined prior to conducting the research that there will likely be national security issues involved, the mechanism to control information will be by classification. Fundamentally, no restrictions may be placed upon the conduct or reporting of federally-funded fundamental research that has not received national security classification, except as provided in applicable U.S. statutes. It is important to point out that NSDD–189 applies to all students, including foreign students, involved in federally-funded fundamental research.

44. Senator LEVIN. Secretary White, Secretary Johnson, and Secretary Roche, how do you work to ensure that these programs are consistently applied across your Service?

Secretary WHITE. There are no restrictions on foreign students working on unclassified basic research sponsored at universities.

Secretary JOHNSON. Each Institution of Higher Education (IHE) that performs Service funded research is responsible for choosing the students that participate in

said research under the award (i.e. grant), as long as the IHE meets all provisions of the award requirements. In most cases, student participation is not limited by citizenship, unless a security clearance is required; however, it is uncommon for an IHE to perform on a classified research program.

Students also participate in research at Service laboratories via various intern/summer programs; however, security clearance requirements generally limit participation in these programs to citizens or, in some cases, permanent residents.

In the case of work performed at IHEs, laboratories, etc., it is generally considered to be the purview of the performing organization to assure that its policies and practices comply with applicable laws and regulations (including those regarding intellectual property and export control).

Secretary ROCHE. To ensure our foreign student involvement programs are consistent across our laboratory, the Air Force relies on our Scientific and Technical Information Program and on our classification program managers to determine if federally-funded work is sensitive and should be appropriately controlled by national security guidelines. If foreign students are involved in research programs, the baseline for determining if fundamental research needs to be controlled for national security reasons is the National Security Decision Directive (NSDD)–189, entitled "National Policy on the Transfer of Scientific, Technical and Engineering Information." This directive establishes national policy for controlling the flow of science, technology, and engineering information produced in conjunction with federally-funded fundamental research at colleges, universities, and laboratories.

PUBLICATION AND CLASSIFICATION OF DOD-FUNDED RESEARCH

45. Senator LEVIN. Secretary White, Secretary Johnson, and Secretary Roche, what policies and directives currently control the classification, publication in literature, and presentation in scientific conferences of Service-funded research programs?

Secretary WHITE. National Security Decision Directive 189 defines policy for publication of federally-funded research results. Under this policy, no restrictions may be placed upon the conduct or reporting of federally-funded fundamental research that has been determined to be unclassified. The challenge is in maintaining a process that identifies when and if unclassified information becomes classified.

National security statutes require periodic reviews throughout the research process to reaffirm the classification of ongoing research. The mechanism for safeguarding this information is through classification. Army Regulation 380–5 (Information Security) provides policies, procedures, and criteria for the security classification of Army information. Additionally, Army Regulation 380–381 (Special Access Programs) provides policies, procedures, and criteria for safeguarding and protecting Army Special Access Programs. Army Regulation 360–1 (The Army Public Affairs Program) provides similar policies, procedures, and criteria for the release of unclassified Army information to the public.

Secretary JOHNSON. Executive Order (EO) 12958, April 17, 1995, Classified National Security, prescribes a uniform system for classifying, safeguarding, and declassifying national security information.

- One of the classification categories is "scientific, technological, or economic matters relating to the national security (SEC 1.5).
- Basic scientific research information not clearly related to the national security may not be classified (SEC 1.8b).

National Security Decision Directive (NSDD) 189, September 21, 1985, National Policy on the Transfer of Scientific, Technical, and Engineering Information with Office of the Under Secretary of Defense/Research and Engineering (OUSD/R&E) Memo, October 1, 1984, Publication of the Results of DOD Sponsored Fundamental Research.

- This directive establishes national policy for controlling the flow of science, technology, and engineering information produced in federally-funded fundamental research at colleges, universities, and laboratories. Fundamental research is defined as follows:

  "Fundamental research" means basic and applied research in science and engineering, the results of which ordinarily are published and shared broadly within the scientific community, as distinguished from proprietary research and from industrial development, design, production, and product utilization, the results of which ordinarily are restricted for proprietary or national security reasons.

• To the maximum extent possible, the products of fundamental research remain unrestricted. It is also the policy of this administration that, where the national security requires control, the mechanism for control of information generated during federally-funded fundamental research in science, technology, and engineering at colleges, universities, and laboratories is classification. Each Federal Government agency is responsible for: (a) determining whether classification is appropriate prior to the award of a research grant, contract, or cooperative agreement and, if so, controlling the research results through standard classification procedures; and (b) periodically reviewing all research grants, contracts, or cooperative agreements for potential classification. No restriction may be placed upon the conduct or reporting of federally-funded fundament research that has not received national security classification, except as provided in applicable U.S. statutes.

Other Directives

DOD 5200.1–R, Jan 1997, Information Security Program Regulation

SECNAVINST 5510.36, 17 Mar 1999, Department of the Navy (DON) Information Security Program (ISP) Regulation

DOD Instruction 5230.29, 6 May 1996, Security and Policy Review of DOD Information for Public Release

DOD Instruction 3200.14, 13 May 1997, Principles and Operational Parameters of the DOD Scientific and Technical Information Program

DOD Directive 3200.12, 15 Feb 1983, DOD Scientific and Technical Information Program

SECNAVINST 3900.43A, 20 Jul 1994, Navy Scientific and Technical Information Program (STIP)

DOD Directive 5230.24, 18 Mar 1987, Distribution Statements on Technical Documents

ONRINST 5570.1, 1 Dec 1986, Distribution Statements on Technical Documents

DOD Directive 5230.25, 6 Nov 1984, Withholding of Unclassified Technical Data From Public Disclosure [applies to all unclassified technical data with military or space applications which may not be exported limited to critical technology with military or space applications]

OPNAVINST 5510.161, 29 Jul 1985, Withholding of Unclassified Technical Data from Public Disclosure

ONRINST 5570.2, 1 Dec 1986, Processing of Unclassified Technical Information

DOD Instruction 5230.27, 6 Oct 1987, Presentation of DOD-Related Scientific and Technical Papers at Meetings

Militarily Critical Technologies List, June 1996, with updates

EO 12829, 6 Jan 1993, National Industrial Security Program (NISP)

Additional DOD/DON directives exist that contain restrictions on release of information relating to specific programs, such as Sensitive Compartmented Information and others, but these are usually classified programs not considered fundamental research.

Other directives deal with specific procedures to accomplish review, if needed.

Secretary ROCHE. I can only speak for Air Force research programs. Fundamental Executive Branch policy is documented in National Security Decision Directive 189, National Policy on the Transfer of Scientific, Technical, and Engineering Information, approved by President Reagan. This Directive states that, "to the maximum extent possible, the products of fundamental research [are to] remain unrestricted."

Classification of all Air Force information is governed by Executive Order 12958, Classified National Security Information, as amended. This order specifies that information may only be classified if an original classification authority determines that its unauthorized disclosure would cause damage to the national security that the classification authority can identify or describe. Information properly classified may only be presented in forums where personnel present have a security clearance and a need-to-know. In addition, some scientific and technical information may be unclassified, but sensitive, and require controls under the Arms Export Control Act, the Export Administration Act, or other statutes. This information could not be presented in open forums, but could be presented in forums where personnel present have a need-to-know, but not necessarily a security clearance. Any scientific and technical information proposed for presentation in any open forum is required to undergo a security review in accordance with Air Force Instruction 35–101, Public Affairs Policies and Procedures.

46. Senator LEVIN. Secretary White, Secretary Johnson, and Secretary Roche, do these provide standard exceptions for fundamental research?

Secretary WHITE. Army activities, including the Army Research Laboratory, have incorporated clauses in the terms and conditions of research contracts when the area of research either may have potential defense applications or contain sensitive material. In these cases, the clause calls for review of the research results and papers prior to publication in the open literature. However, some universities have rejected contracts with prepublication review clauses.

Secretary JOHNSON. Yes. Executive Order (EO) 12958 states that "Basic scientific research information not clearly related to the national security may not be classified."

National Security Decision Directive (NSDD) 189 establishes policy that products of fundamental research remain unrestricted, except where classification is warranted.

DOD Instruction 5230.27 reiterates the policy in EO 12958 and NSDD 189 and is carried down to various DON directives.

Secretary ROCHE. Yes, basic research is normally conducted, presented, and published in the public domain. As research is focused on military or scientific applications, it increases in sensitivity and access becomes more restricted. The only situations where basic research might be restricted or classified are if they involved a scientific breakthrough that had national security implications.

47. Senator LEVIN. Secretary White, Secretary Johnson, and Secretary Roche, how do you work to ensure that these programs are consistently applied across your Service?

Secretary WHITE. By following the adequate and comprehensive National Security, DOD, and Army policies and procedures described above.

Secretary JOHNSON. The Navy follows Department of Defense and Department of the Navy directives. At the Office of Naval Research, program officers and program managers are responsible for determining that classified access is not required and that all information can be released to the public before awarding a grant as fundamental research.

Secretary ROCHE. We have established formal review procedures through our Office of Public Affairs to review any data for release into the public domain. We also have formally designated those individuals having Original Classification Authority within the Air Force and require them to receive training prior to assuming those duties. We have formal mechanisms such as mandatory declassification reviews and annual security reviews to monitor our information security program to ensure information is properly classified and adequately protected. The Air Force Inspector General's office can review programs as needed.

It is both prudent and cost effective to share data on basic research with the scientific community to globally conserve resources and cooperate in determining which approaches have promise and which have already proved worthless. There is no logic to restrict basic research. However, in transitioning from basic research to applied research, we must determine which basic research efforts have promising military applications that should be exploited. We rely on our technical directors in our laboratories to monitor their research programs and make informed judgments on when it is appropriate to begin to restrict access to information for national security reasons.

PROGRAMMING AND BUDGETING FOR TRANSITION

48. Senator LEVIN. Secretary White, Secretary Johnson, and Secretary Roche, a major concern of DOD and Congress is the rapid and efficient transition of technologies from the S&T community to the warfighter. A common problem in this process is the reluctance of acquisition programs to commit out-year funding to transition or accept the anticipated products of current S&T programs, for fear of "losing the money" if the relatively high-risk S&T programs fail for technical reasons. This fear limits program managers' ability to take on risk in their program. How are you working to encourage program managers to take on more risk in their programs in order to accelerate Service transformation?

Secretary WHITE. The new DOD 5000 Defense Acquisition Framework provides Army program managers with a flexible process that encourages the insertion of new technologies at any point along the acquisition process to maintain technological superiority to the warfighter, while keeping program risk at an acceptable level. Key to this framework is the concept of evolutionary acquisition where capabilities are improved through time-phased requirements. The focus is on maturing and demonstrating technologies in a relevant environment before inserting the tech-

nology into actual systems to reduce life cycle cost and cycle time, while keeping overall risk to programs at a manageable level.

The primary tool for communicating technology maturity to the program managers is through Technology Readiness Assessments (TRAs). TRAs are periodically conducted to measure the maturity of developing technologies to ensure they are sufficiently mature before being integrated into systems being developed by program managers. One of the end results of a TRA is the assignment of a Technology Readiness Level (TRL 1 through 9) for the technology being assessed. In general, the Army's position is that technologies are mature enough to transition once they have achieved TRL 6, or where systems have been demonstrated in a relevant environment. If a technology is rated less than a TRL 6, further development and risk reduction work is encouraged with a plan to include the new capability during the next increment or block upgrade of a weapons system.

This new framework encourages the program managers to accept a manageable level of risk while attempting to transition "high-risk" S&T programs into weapon systems. The framework allows for technology insertion by a program manager at any point along a program's life cycle to take advantage of rapidly maturing technologies and ensures technological superiority to the warfighter is maintained.

Secretary JOHNSON. The Navy research and development community is working together to speed the transition of science and technology into the acquisition community. There are two major initiatives underway to reduce the risk of technology transition: the FNC process and the Commercial Technology Transition Office (CTTO).

Future Naval Capabilities (FNC)

FNCs are programs to shape the next Navy and Marine Corps. Developed and managed by integrated product teams with members of the acquisition, requirements, S&T, resource, and warfighter requirements communities, the FNC fill the gap that all too often opens between the S&T community and the acquisition commands.

The FNC process delivers maturing technology to acquisition program managers for timely incorporation into platforms, weapons, sensors, and process improvements. With a total investment of $578 million in fiscal year 2002, over $640 million in fiscal year 2003 and $500 million planned for fiscal year 2004, FNCs support the Secretary of the Navy's goals to: (1) increase combat capability, (2) enhance personnel performance, (3) introduce advanced technology, and (4) improve business practices.

The FNC process is already delivering products to the acquisition community. The Autonomous Operations FNC program is pursuing a dramatic increase in the performance and affordability of naval air, surface, ground, and underwater autonomous vehicles-unmanned systems able to operate with a minimum of human intervention and oversight. The Autonomous Operations FNC gives us a great potential to operate effectively in what would otherwise be denied areas and supports Sea Shield and Sea Strike.

In fiscal year 2004, for example, we will transition the Gladiator Tactical Unmanned Ground Vehicle to the Marine Corps. Gladiator is intended to support dismounted infantry across the spectrum of conflict and throughout the range of military operations. It will enhance the tactical commanders' ability to detect, identify, locate, or neutralize a broad range of threats.

A great deal of our transformational effort is lodged in the FNCs. The key to successful transformation is the strong business partnership among scientists, industry, requirements, acquisition, and warfighters.

Commercial Technology Transition Office (CTTO)

To help enable the transition of technology into naval acquisition programs, the CTTO is staffed with personnel with business skills as well as technical expertise, who are able to communicate effectively with acquisition professionals and empowered to negotiate with them. For the Department of the Navy, this role will be filled by the Commercial Technology Transition Office at the Office of Naval Research, which is explicitly dedicated to transitioning technologies into acquisition programs, works under the aegis of the Assistant Secretary of the Navy (Research Development and Acquisition) (ASN(RD&A)) and coordinates closely with the newly-created Deputy Assistant Secretary of the Navy (Research, Development, Technology and Engineering) (DASN(RDT&E)). By carefully matching mature technologies to specific needs, the CTTO has already concluded 20 technology insertion agreements with senior acquisition managers and has earned their trust.

Beginning in fiscal year 2004, the new Rapid Technology Transition Program Element, PE 0203761N, has been requested to fund the activities of the CTTO. This

program element will provide the seed funding needed to get a fast start on technology insertion projects, including a number of candidates already in the pipeline. The CTTO plans to follow through on leads generated in the dialogue with venture capitalists to add to the pipeline of candidate insertion agreements.

Secretary ROCHE. One way of rapidly transitioning technology to the warfighter and accelerating transformation is through the Air Force Applied Technology Councils (ATCs) and the Advanced Technology Demonstrations (ATDs). The councils are composed of two- and three-star generals from the Air Force Research Laboratory (AFRL), our logistic centers, our acquisition product centers, and our major user commands who formally prioritize ATD programs. We hold an ATC meeting with each Major Command twice a year and have commissioned 34 ATDs that have transition funding. The ATC process is extremely important in linking the S&T program to the system developers, the logisticians, and the operational users. This process facilitates technology transition to operational use and secures user commitment for resources to do systems design and development and fielding of the technology.

49. Senator LEVIN. Secretary White, Secretary Johnson, and Secretary Roche, how can you protect the funding of programs that are attempting to plan and program assuming the success of current S&T programs in the event of technical delays?

Secretary WHITE. Programs that are dependent on success of S&T programs "protect" their funding by minimizing the risk of the S&T program to their overall program. Risk is minimized a couple of different ways. Program managers utilize evolutionary or spiral development to allow open architecture within their hardware design so that if the S&T program is not successful, they can replace that component with proven technology. This still allows the program manager to integrate the new technology when it becomes mature.

In addition, the TRAs are designed to minimize program risk of incorporating new technology, and the evolutionary/spiral development open architecture design process allows for programs to continue forward using proven technology in lieu of new technology that may have been delayed due to unsuccessful S&T efforts. Combined, these practices are designed to help protect funding of programs planning on the success of S&T programs.

Secretary JOHNSON. The Navy S&T community is actively and cooperatively working with the acquisition community to speed and ensure the efficient transition of S&T products into the fleet. In order to reduce the inherent risks of any technology transition of S&T products to the acquisition community, the ONR, in 1999, implemented a new initiative called the FNC process.

The FNC process delivers maturing technology to acquisition program managers for timely incorporation into platforms, weapons, sensors, and process improvements. With a total investment of $578 million in fiscal year 2002, over $640 million in fiscal year 2003 and $500 million planned for fiscal year 2004, FNCs support the Navy's goals to: (1) increase combat capability, (2) enhance personnel performance, (3) introduce advanced technology, and (4) improve business practices.

The 12 FNCs concentrate scientific, technologic, and funding resources to deliver specific programs and products to the acquisition commands on mutually agreed upon schedules. Developed and managed by Integrated Product Teams (IPT), consisting of members of the acquisition, requirements, S&T, resource, and above all, warfighter communities, the FNCs bridge the technological gap that often develops between the S&T community and the acquisition commands. Through a consensus-based approach, the IPT provides critical transition-focused management oversight of all S&T products. Each S&T product is required to have a Technology Transition Agreement (TTA). The TTA serves as the contract between the S&T and acquisition communities and provides all product and transition-relevant information. This includes a description of the product to be delivered, the identification of exit criteria (key technical/performance parameters), target acquisition platform/program, requirements, resource, and demonstration information as well as an assessment of the Technology Readiness Level (TRL) of the product at the time of transition. The TTA are signed by the S&T, acquisition and resource/requirements sponsors, thus eliminating any potential ambiguity.

Additionally, S&T managers sponsor product-specific "industry days" to solicit input from potential industrial performers regarding technological development strategies and associated manufacturing issues. This systematic approach of integrating key stakeholder opinions and perspectives serves to reduce the overall risk associated with the successful technological development and subsequent integration of an S&T product into an acquisition program.

A key component of the IPT-led FNC process is the formal commitment of the acquisition community to accept the technologically-ready FNC products and commit funds to transition them. For example, the Organic Mine Countermeasures (OMCM)

FNC is working to provide our forces with an organic—that is to say, an inherentability to detect, characterize, and neutralize mines, wherever they may be encountered. Closely aligned with the tenets of Sea Shield, the OMCM FNC has recently transitioned several important products. One of them, the REMUS autonomous underwater vehicle, is currently supporting our operating forces as they search for mines in Operation Iraqi Freedom. REMUS was also used in the weeks immediately following September 11 to help secure our domestic ports. REMUS has emerged from a basic oceanographic research program and successfully transitioned to our Special Operations Forces.

The overall FNC process is managed through ONR and the Deputy Assistant Secretary of the Navy for RDT&E and is overseen by the Department of the Navy S&T Corporate Board, a four-star level group consisting of the Vice Chief of Naval Operations, the Assistant Commandant of the Marine Corps, and the Assistant Secretary of the Navy for Research Development and Acquisition. As the FNC approval authority, the Corporate Board serves to provide the macro-level investment balance of the Navy's S&T portfolio.

Secretary ROCHE. Our ATC process facilitates technology transition to operational use and secures user commitment for resources to do systems design and development and fielding of the technology. In this way, we "protect" funding for our ATDs. In addition, we review these ATDs several times during their existence to ensure the technology is maturing as expected. If delays are encountered, all appropriate leadership is informed at that time during the ATC.

UNFUNDED SCIENCE AND TECHNOLOGY PRIORITIES

50. Senator LEVIN. Secretary White, Secretary Johnson, and Secretary Roche, please provide a prioritized list of unfunded S&T projects that the committee can utilize in its consideration of the fiscal year 2004 budget request.

Secretary WHITE. The Army's unfunded priorities provided to Congress included two S&T efforts that we were unable to fully fund in the fiscal year 2004 budget: $28 million for FCS Manufacturing Technology (ManTech) and $12 million for the Future Tactical Truck System (FTTS). The ManTech funding would provide technology solutions to avoid costs in developing munitions and sensors critical to FCS. These include micro electro-mechanical systems for safe and arm functionality, reducing the size and increasing performance of inertial measurement units in munitions, and uncooled infrared sensors for target detection and identification.

The FTTS S&T program is a new effort pursuing technologies for next generation medium and heavy tactical cargo vehicles. The primary goals of the FTTS program are to determine the tactical efficiencies of a hybrid-electric vehicle to reduce logistics demands and increase mobility and survivability by adding technologies such as enhanced situational awareness and add-on armors. The FTTS funding would provide embedded prognostics and intelligent load handling, a vehicle/load alignment system, and a smart load conforming tie-down system.

Secretary JOHNSON. In building the fiscal year 2004 President's budget request, the Department had many competing priorities. I feel that the request reflects the best balance of resources to accomplish the mission of the Department. While the list of efforts below would expand the scope of our S&T request, they need to be considered in the overall context of Navy and Marine Corps unfunded priorities. Unfunded priorities have been provided to various committees by way of a joint CNO/CMC letter.

Title	Fiscal Year 2004 $	Comments
Electric Based Weapons	61.00	Accelerated research and development of the electrical components, electrical control systems and material technologies needed to support electric weapons deployment is a very high risk, extremely high payoff investment area. However, significant investments in these areas will provide a revolution in Naval Fires, Time Critical Strike, and Platform Self-Defense while significantly reducing the logistics footprint required to support this mission area. Products include Electromagnetic Gun Naval Fires, advanced directed energy self-defense weapons, and Free Electron Laser 100KW demonstration.

Title	Fiscal Year 2004 $	Comments
CVN–21/Advanced Capability Ship	49.00	Accelerated research and development of the electrical components, electrical control systems and material technologies needed to support significant expansion of electric power systems and reduction of high maintenance fluid systems is a complex high risk, high payoff investment area. However, significant investments in these areas will ''unlock'' the significant amount of propulsion power for enhanced warfighting capability, such as higher sortie rates, increased striking capability, and improved self-defense while significantly reducing system maintenance and logistics footprint required to support these platforms.
FORCENET	45.00	Develop and demonstrate a shipboard ADM of an Advanced Multifunction RF System (AMRF–C) that will encompass current, planned, and future-growth comms, EW, and LPI radar functions in C, X, and Ku Bands for LCS, DDX subs, and CVN21. Demonstrate wide- and narrow-band anti-jam (AJ) waveforms, a wideband AJ high altitude UAV comms and network package, and a narrowband AJ/LPI/LPD comms and network package (JTRS) necessary for planned and future FORCENET use. Develop technologies and architectures to support high data rate, uninterruptible network to deployed sea base and forces projected ashore.
Space S&T	17.10	Provide the next generation of technologies to enhance and transform both naval and joint warfighting capabilities. The enhancement of space-based communications, navigation, ISR, METOC, and space control all hinge on the development of spacecraft, payloads, and components which are more robust, responsive, covert, and economical. Examples of target technologies are micro-satellites, MEMS, high bandwidth encoding techniques, autonomous operations, etc.
Precision Strike/Solutions to GPS Jamming	60.10	Provide jam-resistant missile guidance by ultra-tightly-coupled GPS/INS system when stand-alone GPS receiver is jammed, thereby circumventing jammer threats. The ultra-tightly-coupled GPS/INS will increase precision flight time of weapon to target and hands off to inertial navigation to guide the weapon when jammed for the last few minutes of flight. Precision navigation, guidance, and control in a GPS denied environment; Nav by imagery, low cost MEMS and laser IMUs and weapon integrated precision timekeeping. Precision target location sensors across EM/optical spectrum and signal/image track processors both on and off-board surface, air, and gun launched weapons. Network, computational, and mission planning technology for precision targeting. Aircraft and weapon airframe and propulsion technologies to counter emerging threat spectrum.
Littoral ASW (LASW)	50.00	Significantly increase ASW applied research to provide technology to meet the 2015 threat. Develop components of advanced off-board distributed systems. Develop technology for cross platform sensor level fusion and estimating performance of advanced sensors. Demonstrate airborne electromagnetic detection system for Multi-Mode Aircraft and UAVs. Demonstrate wide area cueing using advanced electro-optic/infra-red systems and high altitude long endurance UAVs. Demonstrate components for transition to light weight torpedo plan product improvement program.
MANTECH	5.50	Although Navy previously committed to Congress to funding the program at $60 million per year, PB04 (fiscal year 2004) request is only $54.5 million.
Academic Research Fleet Renewal-UNOLS	80.00	There is a pressing need to modernize the country's aging Academic Oceanographic Research Fleet through an orderly, phased renewal plan with construction of four new Ocean Class ships and three new Regional Class ships over the next 10 years.
Seabasing/STOM	24.00	Logistics planning and execution from CONUS to Seabase and Objective. Develop capabilities to support Command and Control on the move from the Seabase to the Objective. Naval Surface Fire Support improvements in range, projectiles/fusing, precision, and volume of fire. Ammunition resupply of surface combatants.
Organic MCM	6.00	Protective Mining—Protect sea basing. Integrated joint command and control for multiple, cooperating unmanned systems. Provides residual for LCS.
Mine Countermeasures Reconnaissance	30.00	Develop clandestine approaches to networked minehunting using fully autonomous, cooperative vehicles with classification sensors reporting tactical control ID indicators. Develop and demonstrate mission capability package for LCS using coordinated swarms of autonomous, interactive, underwater vehicles engaged in networked minehunting.
TOTAL	427.70	

Secretary ROCHE. One of the most important efforts currently ongoing within our S&T program is the work we're doing to enhance the Battlefield Air Operations (BAO) kit equipment carried by the Air Force Special Tactics Controllers who perform operations deep in enemy territory to help identify who the terrorists are,

where their weapons are located, and who the innocent civilians are. Using very rapid spirals to speed development, prototyping, testing, production, and fielding, the Air Force is working to realize significant enhancements to these kits, while reducing weight and size. The following list is a representative summary of high priority S&T efforts, including enhancements to the BAO kit, for which the Air Force could use additional funding in fiscal year 2004. A more detailed, comprehensive list has been provided to the Senate Armed Services Professional Staff as requested.

[In millions of dollars]

Effort	Amount
BAO Kit Enhancements	13.000
Basic Research for Nanosatellites, Space Control, Command and Control, and Super Energetic Propellants	8.000
Intelligence, Surveillance, and Reconnaissance (ISR) Automation for Time-Critical Targeting	11.800
Joint Battlespace Infosphere	13.900
Electronically Steerable Array and Space-Based Radar On-Board Processing	10.000
Advanced Payload—Hard and Deeply Buried Targets	3.000
Commanders' Decision Aids for Predictive Battlespace Awareness	3.500
Laser Infrared Flyout Experiment Advanced Technology Demonstration	7.400
Denied Area Surveillance	1.000
Airborne Active Denial System Integrated Concept	35.860
Force Protection	3.000
Human Systems Countermeasures to Future Laser Threats	3.100
Targets Under Trees	3.800
Effects-Based Operation	4.000

QUESTIONS SUBMITTED BY SENATOR DANIEL K. AKAKA

DEPOT MAINTENANCE

51. Senator AKAKA. Secretary Roche, the Air Force's fiscal year 2004 budget request for depot maintenance is at its lowest level in a decade. At the same time, the operational tempo of its aircraft is very high and it appears that it is likely to remain at high levels, if not grow higher, for the foreseeable future. Why did the Air Force choose to reduce maintenance funding under the current circumstance?

Secretary ROCHE. We increased our funding by $226 million from fiscal year 2003 to fiscal year 2004 in the fiscal year 2004 President's budget for depot maintenance. However, our requirements grew by $486 million for that same period. The increase in funding applied by the Air Force was quickly absorbed by aging aircraft issues that are increasing both material consumption and direct labor hours. For example, the depot work package for KC–135E aircraft has doubled in the last 10 years, primarily due to aging aircraft issues. One factor is the corrosion on the engine struts, the point at which the engines attach to the wing. This corrosion must be repaired now or it will continue to worsen, become more expensive to repair over time, and could impact the safety of flight/airworthiness of our KC–135E fleet. There are numerous examples like this across all our fleets. We faced tremendous pressure in this budget and took some risk within depot maintenance, knowing that we will have challenges to work in fiscal year 2004. We are committed to working those challenges.

52. Senator AKAKA. Secretary Roche, do you believe these reductions are consistent with maintaining ready forces in the near- and mid-term?

Secretary ROCHE. Right now, the Air Force is experiencing its best readiness posture in years: Aircraft down for spare parts is less than 11 percent—the best it has been since fiscal year 1996. Cannibalization rates have decreased 26 percent since fiscal year 1997. Engine readiness is at its highest level since fiscal year 1998. We have been able to do that with your help and with some help from the OSD. We know we have challenges in fiscal year 2004 as we try to maintain our forward progress in improving our readiness posture. Obviously, we have to look at tradeoffs and make tough decisions, but the impact to readiness will be one of the first questions asked as we work through those decision sets. We are committed to working through those challenges and addressing any backlogs in fiscal year 2005.

BASE OPERATING SUPPORT

53. Senator AKAKA. Secretary White, Secretary Johnson, and Secretary Roche, the fiscal year 2004 budget request for each of your Services includes reductions in base operating support. These accounts fund critical aspects of keeping our military installations running safely and efficiently. In addition, they frequently serve as "flexible" accounts from which money is drawn in the short-term for ongoing operational demands. Many times, these funds are not fully replaced by future supplemental allocations. Are you comfortable with these reductions?

Secretary WHITE. The Army took some risk by funding higher priorities in force protection and replenishing depleted peacetime spares inventories to eliminate a significant readiness issue. We will continue to provide quality services to our soldiers and their families but in some instances, the quantity of services will be reduced.

Secretary JOHNSON. From a broad readiness perspective, I expect no negative impact on shore installation readiness as a result of the fiscal year 2004 budget request for base operating support. The fiscal year 2004 budget is aligned with previous years in terms of producing a constant level of capability. In our effort to reduce support costs, we are making organizational and process changes in the management and delivery of installation support. Key to this effort is the establishment of a single consolidated organization, Commander, Navy Installations (CNI), whose core mission is management and operation of shore installations. The fiscal year 2004 budget reflects anticipated efficiencies, which allow us to produce the same capability at a lower cost.

Secretary ROCHE. The reduction in our fiscal year 2004 Base Operating Support account results from three factors:

(1) A reduction in the Defense Finance and Accounting Service annual payment. This reduction is based on historical levels paid to the Defense Finance and Accounting Service for financial services.

(2) Rate reductions from the Transportation Working Capital Fund. Because the Transportation Working Capital Fund posted higher earnings in fiscal year 2002 during Operation Enduring Freedom, the carryover results in reduced rates in fiscal year 2004.

(3) Fiscal constraints and the realignment of funding to other Air Force priorities. While not completely comfortable with these reductions, the Air Force must balance funding across its full spectrum of requirements. We have included a $160 million request for base operating support on the fiscal year 2004 Unfunded Priority List.

54. Senator AKAKA. Secretary White, Secretary Johnson, and Secretary Roche, what are both the short- and long-term implications of these decreases, both for morale and for future funding requirements?

Secretary WHITE. The short-term implication will be reduced services. In the long-term, the Army will need to increase base operations support to ensure we meet soldiers' needs. Affordability limits the amount of funding that can be devoted to base operations support.

Secretary JOHNSON. I anticipate no long- or short-term implications for these decreases. While projections of shore installation requirements show the submitted budget less than 3½ percent short of the requirement to sustain current levels of service through fiscal year 2004, these calculations include assumed efficiency savings which I believe to be conservative. However, as you know, one of my key issues is concern for the quality of service for our service men and women. Therefore, you will see included on CNO's Unfunded Programs List, an item for an additional $98 million for base operations, to reduce the risk of not maintaining a constant level of service in fiscal year 2004, which in turn may affect the quality of service experienced by our sailors.

Secretary ROCHE. In the short-term, the fiscal year 2004 base operating support program decrease will lower the level of services provided at our installations. Commanders are aware of base operating support service level reductions and typically take measures to mitigate morale impacts by allocating available end-of-year funding for quality-of-life items.

In the long-term, the Air Force will continue to strive to balance adequate base operating support funding with the need to fund other Air Force requirements.

EXECUTIVE AGENCY

55. Senator AKAKA. Secretary White, Secretary Johnson, and Secretary Roche, the Under Secretary of Defense (Comptroller) recently stated that his office is conducting a review of whether the Services should continue to have "executive agent" re-

sponsibilities for various DOD functions. What are your views on this subject? What alternatives to executive agency should be considered?

Secretary WHITE. While I have not seen the Under Secretary of Defense (Comptroller) review you mention, I believe the Services should continue to have executive agent responsibilities because this minimizes duplication of Service efforts and resources. I do, however, have several concerns about executive agent responsibilities. These responsibilities must be reviewed frequently by the OSD to ensure they are still appropriately assigned and the Services should be resourced to accomplish their assigned responsibilities.

DOD is addressing these issues with DOD Directive 5100.88 (DOD Executive Agent) published on September 3, 2002. While this directive is still in the process of being fully implemented, it establishes procedures to address the Army's concern that Services are assigned executive agent responsibilities, yet not provided the resources to meet those responsibilities. DOD Directive 5100.88 specifies procedures to identify funding methods and resource requirements and include them in the planning, programming, budgeting, and execution process. In the future, Services will not have to take funds from Service specific programs to fund their executive agent responsibilities. DOD Directive 5100.88 also instructs the OSD Director of Administration and Management to maintain, monitor, and revise the list of DOD Executive Agent designations and make it available to all DOD components.

The Army is not aware of any better alternatives to executive agent responsibilities and believe that our efforts should focus on fully implementing Directive 5100.88 to identify executive agent responsibilities and ensure they are properly resourced.

Secretary JOHNSON. Navy has Executive Agency of Joint Forces Command (JFCOM) and Pacific Command (PACOM). In light of the ongoing study underway by Office of the Under Secretary of Defense (Comptroller) and Joint Staff, the Navy is in a position to evaluate the alternatives as they are finalized. The current system affords the opportunity for the Navy and the Combatant Commands to actively engage in discussion and evaluation of issues in order to gain a general understanding of the requirements.

Secretary ROCHE. A fiscal year 2004 Program Decision Memorandum gave the Under Secretary of Defense (Comptroller), in concert with the Under Secretary of Defense (Programs, Analysis, and Evaluations), and the Joint Staff, the responsibility for identifying alternatives to Executive Agency to the Senior Level Review Group (SLRG). The Air Force has been told the alternatives will range from keeping the current system to totally replacing it. The Office of the Secretary of Defense and Joint Staff internal review process is ongoing; the task force is preparing a briefing for the SLRG but the meeting has not yet been scheduled.

TRANSITION FUNDING

56. Senator AKAKA. Secretary White, Secretary Johnson, and Secretary Roche, as DOD places increasing emphasis on joint experimentation, some have suggested that Joint Forces Command (JFCOM) should be provided with its own funding in order to purchase promising items quickly and get them directly into the hands of the regional combatant commanders. In your view, does JFCOM need such an account?

Secretary WHITE. In meeting its responsibilities as the lead Joint Force Integrator and DOD's executive agent for Joint Warfighting Experimentation, JFCOM already performs a significant and valuable function. In this capacity, JFCOM develops future joint warfighting concepts and validates those with the most promise through joint experimentation. If the analysis indicates changes in doctrine, organizations, training, materiel, leadership and education, personnel, and facilities are warranted to enhance joint, multi-national, or interagency interoperability, JFCOM forwards these through the Joint Requirements Oversight Council (JROC) to the Chairman of the Joint Chiefs of Staff (CJCS) and Services for implementation.

We have received and acted upon a number of recommendations since this process began last year, but JFCOM does not have the procurement processes or the expertise necessary to implement a rapid acquisition program that would flow from funding as you describe. The Army believes the Joint community is best served by JFCOM continuing to serve as the focal point for concept development and experimentation and providing specific change recommendations to the CJCS and Services through the JROC. The military departments and Defense agencies already have the acquisition mechanisms and expertise, with oversight provided by the JROC and OSD, to rapidly procure and distribute items to the regional forces assigned to combatant commanders. In addition to the normal acquisition process, which is cur-

rently undergoing significant improvements and streamlining, we have dramatically improved our rapid acquisition programs to quickly provide promising and "off-the-shelf" products and capabilities to Army forces and combatant commanders.

Secretary JOHNSON. Draft Defense Planning Guidance for Fiscal Year 2005 proposes the establishment of a Joint Rapid Acquisition Program (RAP) by USD(AT&L) in coordination with JFCOM to rapidly acquire joint capabilities for fielding. It further states that Joint RAP "will accelerate acquisition by starting development in the fiscal year with bridge funds that tie the joint acquisition initiatives to the Planning, Programming and Budgeting System (PPBS) process." The program is intended to allow the rapid testing and evaluation of emerging technologies to facilitate transformational initiatives. Since the existing PPBS processes do not support rapid test, evaluation, and acquisition, some mechanism will need to be established, and Navy supports the development of Joint RAP.

Secretary ROCHE. Joint Forces Command funding authority for rapid acquisitions carries risk. Experimentation results alone do not provide the total evaluation required to ensure future interoperability and sustainability. Title X provides the Secretary of the Air Force with the responsibility for equipping Air Forces for the combatant commanders. In close partnership with JFCOM, we can apply Service acquisition processes to rapidly deliver those capabilities to the regional combatant commanders and ensure corresponding programming strategies for sustainment and upgrades.

57. Senator AKAKA. Secretary White, Secretary Johnson, and Secretary Roche, what would the impact be on your Service and its support to the regional commanders?

Secretary WHITE. The most significant impact would be on the oversight provided by the JROC. This body oversees the development and implementation of warfighting solutions to ensure joint coherency. Elimination of JROC oversight will increase the challenges associated with program integration and synchronization of the capabilities provided to regional combatant commanders. As mission executers, combatant commanders rely on the military departments and Defense agencies to provide effective and interoperable forces and capabilities through their respective Service component commands, particularly important as forces are shifted between theaters for operational missions. Mature processes and procedures to accomplish this are in place and working. Providing JFCOM funding and acquisition authority would unnecessarily complicate the challenge of providing synchronized and integrated capabilities to combatant commanders.

Secretary JOHNSON. Draft Defense Planning Guidance for Fiscal Year 2005 states that start-up funding for the Joint Rapid Acquisition Program will be provided in fiscal year 2005 and out. The source of these resources has not been identified. Assuming that these resources are provided to the Navy, any long-term financial impact will be related to the technologies tested. Assuming positive testing and evaluation, the bridge funding proposed in the language will allow some transition period for the Services to identify appropriate funding alternatives.

Secretary ROCHE. The Air Force believes we are currently on the right approach in teaming with JFCOM to identify transformation needs and capabilities and then applying Service acquisition processes to deliver these capabilities to the regional commanders. The addition of acquisition authority to JFCOM would only serve to complicate a teaming arrangement that we believe is working. There is no process to synchronize the timing between JFCOM rapidly purchasing a capability and the ability of the Service to program for training, fielding, and sustainment. Ultimately, the lack of a coherent implementation plan will impact support to the regional commander.

HOUSING INITIATIVES

58. Senator AKAKA. Secretary Johnson, in your written testimony you state that the Navy relies first on the local community to provide housing for our sailors, marines, and their families. Given today's threat environment how does the Navy propose to address force protection concerns for those sailors and marines living off base on the local economy?

Secretary JOHNSON. The Navy's force protection plans for families living in the private sector are much the same as for civilians. Currently, about three out of every four Navy families live in the private sector, side by side with their civilian counterparts. Security and protection for these families are provided through the existing network of Federal, State, and local law enforcement authorities currently protecting all of our citizens. The dispersal of military personnel into the private

sector reduces the exposure of military personnel to force protection threats. Additionally, the regular training and awareness provided to active duty members on the issue of antiterrorism and force protection contribute to the safety of military families regardless of where they live.

ANTI-TERRORIST/FORCE PROTECTION (AT/FP) FUNDING

59. Senator AKAKA. Secretary White, Secretary Johnson, and Secretary Roche, according to the administration, homeland defense funding drops in the fiscal year 2004 request due to one-time force protection investments in 2003. Out of the approximate $2 billion decrease for the Department, homeland defense funding for MILCON, which represents AT/FP funding, drops from $733 million to $82 million. What progress have you made in the buy-out of AT/FP requirements for our installations? Are we almost finished fulfilling the requirements, or should we expect additional requirements in fiscal year 2005, fiscal year 2006, fiscal year 2007, and the future?

Secretary WHITE. The Army has significant requirements in MILCON, operations and maintenance, and procurement in fiscal year 2005 to fiscal year 2009.

The Army has made significant progress in buying AT/FP requirements for our installations. In fiscal year 2003, approximately $211 million will be spent on AT/FP MILCON projects related to installation access control. Additionally, approximately $302.4 million of Other Procurement, Army will be spent on physical security equipment controlling access on installations.

Secretary JOHNSON. Through Joint Service and Navy Integrated Vulnerability Assessments, critical facilities at each installation are regularly assessed. These assessments compare existing critical facilities against prevailing construction criteria. The Vulnerability Assessments are performed on a 3-year cycle for CONUS installations, and every 2 years for OCONUS installations. In addition, installations are required to perform self-vulnerability assessments annually. Based on the results of these assessments, the Navy continually looks at its Antiterrorism/Force Protection (AT/FP) requirements for our installations, and programs the most needed projects. As such, there could be additional requirements for AT/FP projects for fiscal year 2005 and beyond as these assessments are completed. The fiscal year 2004 President's budget future years defense program indicates that the total resource requirement to address the Navy's force protection needs with military construction is $542.3 million. It should be noted that each military construction project is designed to incorporate antiterrorism/force protection construction standards.

Secretary ROCHE. With the fiscal year 2003 enacted budget, the Air Force is investing more than $450 million in antiterrorism/force protection facility requirements. Of this amount, more than $200 million is being invested through our military construction program.

For fiscal year 2004, we have requested nearly $20 million for antiterrorism/force protection-specific projects (e.g., perimeter fencing, entry access gates) and antiterrorism/force protection design requirements embedded into other construction projects. In addition to this investment, we still have antiterrorism/force protection requirements programmed in our future years defense plan. Specifically, the Air Force has identified approximately $100 million in requirements for fiscal years 2004–2009. These projects either enhance existing antiterrorism and force protection measures or eliminate inefficiencies caused by existing workarounds. They include, for example, fencing, entrance gates, and vehicle inspection stations.

OVERSEAS BASING

60. Senator AKAKA. Secretary White, Secretary Johnson, and Secretary Roche, could each of you please discuss the support you currently receive through host nation construction programs such as the Japanese Facilities Improvement Project in Japan and the Funded Construction Program in Korea as well as support in Europe?

Secretary WHITE. The host nation funded construction programs consist of the Facilities Improvement Program (FIP) in Japan, the Combined Defense Improvement Program (CDIP), and the Republic of Korea Funded Construction (RoKFC) program in Korea. In Europe, we also have a Payment-In-Kind (PIK) program in Germany under which we use residual value to build facilities.

The primary host nation funded construction program is the FIP, which has provided about $700 million of construction per year. The program was implemented in 1979 and over the past 20 years, the Government of Japan has built $19 billion of new quality of life and operational facilities for our U.S. service members.

In Korea, the CDIP was initiated in 1982 by the Republic of Korea to share the financial burden of maintaining U.S. Forces in Korea. The CDIP funds projects that support only warfighting and operational facilities, and total about $50+ million of construction per year. Residual value is a method for Germany to provide compensation for the Army's improvements to facilities on installations we return to Germany. PIK is residual value that comes in the form of construction credits. The PIK program awarded $244 million in construction projects through fiscal year 2002.

Secretary JOHNSON. The Navy receives host nation funded construction (burden sharing) support from both Japan and Korea. The Japanese Facilities Improvement Program is funded by the Japanese Defense Agency and currently supports four categories of projects: force structure or mission increases, family housing (provision of housing only) and community support, Japanese initiatives including environmental and safety issues, and service initiatives. In Korea, two cost sharing programs are in use including the Combined Defense Improvement Fund (CDIP) and the Republic of Korea Construction Fund (ROKCF). The CDIP supports construction of facilities related to improved combat operations, war reserves, and combined U.S./Korea operations. The ROKFC supports quality-of-life and sole U.S. use projects. In Europe, we use every available funding source, including the NATO Security Investment Program (NSIP) for those eligible projects, residual value, and payment-in-kind in partnership with the host nations.

Secretary ROCHE. The Air Force receives support, in the form of host-nation funded construction, from NATO, Japan, and Korea. In recent years, that support has averaged roughly $300 million per year. The funds provided by these countries are used to construct facilities that directly support Air Force missions, as well as facilities that support quality of life for service members and their families stationed overseas. For example, the NATO contribution helps offset construction supporting the Air Force's roles in the NATO mission. The Japan Facilities Improvement Program (JFIP) supports "defensive" warfighting capabilities, such as aircraft shelters, and may be used to replace "offensive" capability facilities that predate 1979. The Korean Combined Defense Improvement Program (CDlP) funds combined Republic of Korea-United States warfighting requirements; while the Republic of Korea Funded Construction (ROKFC) Program funds mission support and quality-of-life requirements.

In addition, under the Rhein Main transfer program, Germany is helping to pay for facility construction at Ramstein and Spangdahlem Air Bases necessary to relocate the missions currently at Rhein Main Air Base. In total, Germany is investing nearly $400 million to help pay for construction associated with this relocation. The majority of this construction will occur in 2004 and 2005.

61. Senator AKAKA. Secretary White, Secretary Johnson, and Secretary Roche, what is the status of each of these programs and how do we currently benefit from these partnerships?

Secretary WHITE. The various host nation funded construction programs continue to be an active and important program for our forces overseas by providing quality-of-life and operational facilities at little or no cost to the U.S. taxpayer.

Secretary JOHNSON. All of these programs are active and help share the financial burden of a forward deployed posture. In fiscal year 2002, we received $199 million in support from the Japanese Facilities Improvement Program (JFIP) to include $80 million for improvements to the Yokosuka carrier pier, and $4.5 million from the Republic of Korea Construction Fund (ROKCF) to include a $3.8 million medical clinic in Chinhae. In Europe, we use every available funding source, including the NATO Security Investment Program (NSIP) for those eligible projects, residual value and payment-in-kind in partnership with the host nations.

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62. Senator AKAKA. Secretary White, Secretary Johnson, and Secretary Roche, could each of you please describe your Services' efforts to consolidate forces overseas with programs such as the Land Partnership Plan in Korea and Efficient Basing East in Germany?

Secretary WHITE. Efficient Basing-East will consolidate the activities of 13 installations in Germany onto one, allowing the majority of those installations to be closed. Efficient Basing-East will enhance unit readiness and effectiveness by improving command and control, enhancing force protection, and improving training. Soldier quality-of-life will also be improved because new housing and renovated or new mission facilities will be provided.

Land Partnership Plan in Korea will consolidate 41 U.S. Forces, Korea (USFK) installations onto 23 enduring installations. Of these 41 installations, 32 are Army installations which will be consolidated onto 14 enduring installations. The plan returns approximately 32,000 acres to the Republic of Korea (RoK). USFK will receive new facilities to replace currently occupied poor facilities with more joint use of RoK ranges and training areas to improve training and combat readiness. Command and control, force protection, and soldier quality-of-life will also improve.

Secretary JOHNSON. The Navy has successfully consolidated our presence overseas in a number of core locations. In Naples, Italy, where we operate multiple sites, we are nearly complete with a major effort to consolidate facilities at two sites. A major recapitalization at Sigonella, Sicily is underway and a consolidation of facilities at La Maddalena will soon begin.

Secretary ROCHE. Air Force overseas force structure is inherently consolidated since our operations primarily revolve around an airfield. For this reason, the Land Partnership Plan and Efficient Basing East models are difficult to apply directly to Air Force overseas basing, basing that has changed significantly since 1990.

For example, United States Air Forces in Europe (USAFE) had 805 aircraft and 72,000 personnel at 51 locations in 1990. Today USAFE has 220 aircraft and 32,000 personnel at 28 locations—a 45-percent reduction in operating locations. This consolidation of locations overseas was based in part in the transformation of the Air Force from an overseas garrison force to a predominately stateside expeditionary force.

QUALITY-OF-LIFE

63. Senator AKAKA. Secretary White, Secretary Johnson, and Secretary Roche, funding for a number of budget areas that directly affect quality-of-life for our service men and women has seriously decreased in this year's request. Some examples include a $1.5 billion drop in overall MILCON funding, a $200 million cut to family housing, and a reduction that brings Army restoration and modernization, or R&M, down to a level that is 10 percent of the fiscal year 2002 level. What impact will these types of reductions have on the quality-of-life of our service men and women and their families?

Secretary WHITE. Quality-of-life continues to be an Army priority, and available funding is focused on restoring or building new facilities that improve the living and working conditions for soldiers and their families. For example, our budget request supports the elimination of inadequate family housing by 2007, compared with 2010 2 years ago. For single soldiers, we have budgeted over $700 million for new and renovated barracks in this year's budget request. While budgets fluctuate from year to year, the Army's commitment to barracks and family housing improvements has not wavered.

Secretary JOHNSON. The Department of the Navy's fiscal year 2004 budget request represents a balance between funds needed to operate, recapitalize and transform our fleet assets with funds needed to do the same for our shore installations. We believe our quality-of-life programs will continue to provide the kinds and levels of support needed by Navy and Marine Corps families.

We do not anticipate an adverse impact on quality-of-life as a result of reductions to MILCON funds for housing. The Department of the Navy will eliminate its inadequate military family housing by fiscal year 2007. This is possible through increased reliance on the use of military housing privatization authorities. These authorities allow us to leverage Government resources with private sector capital to

renovate or replace our inadequate housing and construct additional housing as needed. More importantly, the continuing commitment to buy-down out-of-pocket housing expenses, through increases to the Basic Allowance for Housing, will allow our sailors and marines to be better able to find suitable, affordable housing in the private sector.

Secretary ROCHE. With the fiscal year 2004 budget request, the Air Force is continuing to focus on quality-of-life for our people. The quality of our facilities, infrastructure, and communities sends a direct signal to our men and women regarding the value we place on their service.

Our military construction request is up $150 million from last year's request—a 20 percent increase. Included in that request is more than $250 million to construct new dormitories, fitness centers, and family support/child development facilities.

Our housing request is up slightly from last year's request and up nearly 30 percent from the fiscal year 2002 request. This year we will construct or renovate more than 3,600 houses, and with the exception of 4 northern-tier locations, we will eliminate our inadequate housing units in the United States by 2007.

Finally, our facility sustainment, restoration, and modernization (O&M) request is as high as it has been in a decade—nearly $2 billion. This level of funding allows us to properly invest in facility sustainment (to keep our good facilities good) and invest some O&M funding in much-needed restoration and modernization.

Recent surveys indicate that members perceive no significant problems with Air Force quality-of-life. In our newest survey, 90 percent of respondents agreed that the Air Force is a good place to work. Housing ranked fifth and sixth in order of importance of quality-of-life issues while pay and compensation ranked as the top two. As you can see from the preceding paragraphs, we have a get-well plan for MILCON. With the help of Congress in these few appropriation cycles, we have made significant progress in the area of pay and compensation. We have seen dramatic changes in the number of individuals who feel that total compensation is fair. We thank you for that much needed support and appreciate your question concerning the overall quality-of-life for our members and their families.

ORDNANCE CLEANUP

64. Senator AKAKA. Secretary Johnson, you indicated that the Navy was planning on treating the island of Kaho'olawe as a formally used defense site (FUDS). Given the fact that the FUDS program is severely underfunded and that priority is given to unexploded ordnance (UXO) clearance in areas with civilian populations, I am concerned about this revelation. Please provide me with more detail about the Navy's intentions regarding this issue including, but not limited to, how this would affect the Navy's responsibilities regarding the clearance of newly discovered previously undetected ordnance on Kaho'olawe after November 11, 2003.

Secretary JOHNSON. The Navy does not plan on treating Kaho'olawe as a FUDS after control of the island is returned to Hawaii in November 2003. The Navy executed a quitclaim deed in 1994 that transferred title to Kaho'olawe to the State. DOD policy makes cleanup/clearance of any property transferred from DOD control after October 17, 1986 ineligible for FUDS funding.

With respect to the discovery of previously undetected ordnance on Kaho'olawe Island after November 11, 2003, the Navy and the State of Hawaii have been working on a Memorandum of Agreement concerning the means for regular interval cleanups and removal of newly discovered previously undetected ordnance by the Navy, as required by Section 1002(a)(2) of PL 103139. Representatives from the Navy and the State continue to discuss the framework for the agreement. The Navy is planning on reserving funds in the Kaho'olawe Island Trust Fund for clearance associated with the above discoveries.

QUESTIONS SUBMITTED BY SENATOR BILL NELSON

MANPOWER

65. Senator BILL NELSON. Secretary White, last week all four Service Chiefs testified that their forces were under significant "strain" due to the high operational tempo required by the global war on terrorism, peace support operations (Bosnia/Kosovo), and forward presence missions (South Korea). In particular, the Army is feeling significant strains to its 480,000-soldier force, which is the same size as was authorized in the late 1990s despite a substantial increase in deployments and combat operations since September 11. A potential peace support operation in Iraq requiring thousands of Army troops will add to this burden. The Bush administration

continues to insist that more troops are not required. Instead, they claim that the existing force must be used more efficiently. Is the active duty Army big enough to accomplish the tasks it has been given?

Secretary WHITE. Nothing has changed since my last testimony—the Army is too small for its mission profile. The reality is that our operations tempo (OPTEMPO), already challenging before September 11, has increased dramatically in the post September 11 environment. Over the past 18 months, mobilizations have maintained a steady state of approximately 30,000 Reserve component soldiers, effectively increasing our active duty strength to approximately 510,000. We recognize the necessity to ensure we look internally to obtain all possible efficiencies before making any determinations on potential end strength increases.

A study is currently underway to review Army non-core competencies—the Third Wave—with the expectation that some personnel savings will be generated for use in mitigating "force stress." Additionally, we are fully cognizant of the stress that this steady state mobilization is placing on our Reserve components. Studies are underway to determine the correct balance of Active and Reserve Forces, including an analysis exploring options for mitigating the current stress to the Reserve components by ensuring that the correct type units are resourced within the active component. The results of these studies, coupled with corresponding supportability analyses, are expected to provide valuable insight into the end strength question.

66. Senator BILL NELSON. Secretary White, is it possible to realign the existing active force of 480,000 troops to relieve this pressure without "breaking" the force in terms of training and logistics support needs?

Secretary WHITE. Efforts are currently underway to examine the existing active and Reserve component mix. This analysis will include a review of those high-demand/low-density organizations, primarily located in the Reserve component, that are experiencing extended or repeat mobilizations in support of operations worldwide. Any attempt to assess impacts to training and logistics support needs would be premature until all analysis is complete.

SHIPBUILDING

67. Senator BILL NELSON. Secretary Johnson, the size of the Navy's fleet is expected to decline to as few as 292 ships in the coming years, yet Admiral Clark has repeatedly testified that he needs a minimum of 375 ships to accomplish all the missions he has at a reasonable operational pace. Why is there such a large difference between what the Navy says it needs and the fleet supported by the President's budget?

Secretary JOHNSON. To build a force of about 375 ships needed to meet the requirements of the new defense strategy will require a major commitment of resources over an extended period of time. The fiscal year 2004 President's budget includes a significant funding increase from fiscal year 2003 to fiscal year 2004 for Navy shipbuilding programs. Funding for Navy shipbuilding programs is projected to increase across the Future Years Defense Program. In the near term, some older, less capable ships will be decommissioned. The operational cost savings from retiring these higher manning, maintenance intensive ships will be used to help finance the transition to a larger, more capable force. This will result in a smaller force in the near term, but savings generated by those retirements will facilitate the transition to the numbers, type, and mix of ships required to execute the range of missions anticipated in the 21st century.

68. Senator BILL NELSON. Secretary Johnson, can you estimate the additional cost involved to bring the size of the fleet anywhere near the Chief of Naval Operation's target size?

Secretary JOHNSON. To achieve approximately 375 ships in the first quarter of this century requires an average of $14 billion per year in new construction (TY03 dollars) and procurement of an average of .12 ships per year. This requires a long-term commitment to fund construction at significantly higher levels than recent years. Additionally, to sustain this force will require an average of $2 billion per year (TY03 dollars) for nuclear refueling overhauls, conversions, landing craft, and service craft replacement.

MANPOWER REDUCTION

69. Senator BILL NELSON. Secretary Johnson, how do you justify the 10,000-sailor reduction in the President's budget when the future shape and size of the Navy has yet to be determined?

Secretary JOHNSON. In conjunction with the execution of our overall investment strategy, we continue to conduct extensive reviews focused on balancing current and future force operational requirements and capabilities, while operating within established fiscal constraints. In proposing the budget submission for fiscal year 2004, we determined that reducing the number of less capable, manpower intensive platforms would free valuable resources essential to future plans for enhancing transformational capabilities. The manpower associated with these force structure changes results in a smaller requirement.

Additionally, Navy has various efforts underway that are helping improve manpower efficiency and reduce future manpower requirements:

- Task Force Excel is exploring innovative techniques to improve how we train sailors.
- Sea Swap and Optimal Manning are finding ways to keep battle forces at sea longer while exploring potential areas to restructure crew manning.
- FORCENET is aimed at improving manpower efficiency by integrating warriors, sensors, networks, command and control, platforms, and weapons into a networked distributed combat system.
- Sea Enterprise maintains core capabilities, optimizes investments, and applies selected business reforms to our organizations and processes.
- Sea Warrior is the enhanced assessment, assignment, training, and education of personnel.

We believe these initiatives, when completed, will yield increased capabilities, while permitting us to man our forces in the most efficient and economical manner possible.

RESERVE MOVEMENT

70. Senator BILL NELSON. Secretary White, Secretary Johnson, and Secretary Roche, current and future operations in the global war on terrorism are increasingly requiring mobilization of large numbers of Reserve component forces. Mobilization of these patriotic citizen-soldiers is, of course, a burden on thousands of families and communities nationwide. Looking into the future, what do you think the long-term impact of extended and frequent Reserve mobilizations will be on the strength and vitality of the Reserve Forces?

Secretary WHITE. Soldiers from the Army National Guard and Reserve have been in a continuous state of mobilization since December 1995. Rotations in Bosnia, Kosovo, Kuwait, and mobilizations and deployments as part of Operation Noble Eagle and the global war on terrorism have all become part of what it means to serve in the Army National Guard and Reserve today. These recurring deployments have given our units a great deal of experience in being able to mobilize quickly and effectively.

We are sensitive to the stresses of frequent mobilizations and the impacts on retention and recruiting of quality soldiers. Soldiers are committed to their duty, and we do not anticipate any long-term impacts on the readiness of the force resulting from the ongoing mobilizations. The concerns of most soldiers, families, and employers are that the mobilizations are as predictable as possible and the duty is directly related to the defense mission of the Nation. We anticipate a higher attrition rate after the stop-loss policy is lifted. However, a part of this attrition will be a result of impeding normal loss over time. Additionally, we are looking at building a rotational base in the force that is applicable to the Reserve component (RC). This concept is based on a plan for a 180-day unit rotation, which falls within the 270-day Presidential Selective Reserve Call-up authority, no more than once every 5 years. Among other things, it will provide these units with operational experience, provide OPTEMPO relief for the active Army, impart a sense of predictability for the RC soldiers, and distribute the workload across the force. Consequently, we expect that this concept will mitigate any potential negative effects caused by increased small-scale contingency mobilizations.

Secretary JOHNSON. It is difficult to accurately predict the long-term impact of extended and frequent Reserve mobilizations on the Reserve Forces. While there has been considerable discussion about mobilizing large numbers of reservists and involuntarily extending some for 2 years, the Naval Reserve has called up approximately 25 percent of its force since September 11. Preliminary trends do not show an in-

creased attrition rate from the Naval Reserve as a response to a concern about being mobilized. In fact, since June of last year we have seen the Naval Reserve's focused enlisted attrition rate rise only slightly greater than 2 percent to a rate of 19.1 percent. Our Naval Reserve Career Decision Survey results show that financial and medical compensation are the key reasons for mobilized reservists to stay in the Naval Reserve. On the other hand, the effects of mobilization on our reservists' spouses and children are the main reasons some of them choose to leave.

One often-overlooked impact that mobilization has on the Naval Reserve is within recruiting. In the last few years the Naval Reserve has seen a downward trend in the number of NAVETS entering the Naval Reserve. Although this may be a factor of higher retention rates in the active component, it may also reflect a propensity of NAVETS not to join the Naval Reserve upon release from active duty for fear that they may be mobilized after joining the Naval Reserve.

The net impact the global war on terrorism will have on the Naval Reserve is still uncertain. However, the key to maintaining a strong Naval Reserve Force during periods of mobilization is to maintain training opportunities, mobilize SELRES to fill meaningful requirements (i.e., those for which they were trained), and ensure personnel policies (such as duration of mobilization and healthcare for the member's family) are consistent, fair, and seamlessly accessible.

Secretary ROCHE. The long-term effect of extended deployments for our reservists is in the data-gathering process. Presently, there is no correlation, but this number and length of deployments is unprecedented. Reserve components continue to face many challenges, to include recruiting and retention. Since 1992 when the number of active duty separations was 50,000, to the current 13,000, they have relied more and more upon Non-Prior Service (NPS) accessions and accessions from other Services to fill that recruiting pool gap. Recruiting more NPS also means more time and money, and a higher attrition rate than with prior service recruits.

In addition to considerations of a smaller pool of potential prior service personnel, recruiting from active duty becomes more difficult during high operations tempo periods because those leaving active duty, when faced with transitioning to a civilian job, will choose not to participate in the Reserve or National Guard. This is particularly prevalent in the high-stress, high-demand, low-density career fields. Likewise, this becomes true for those who participate and are faced with whether to continue to do so at the risk of their civilian job or their families.

Anticipating these difficult decisions, and evaluating what effect the high operations tempo has had and will have on members of the Reserve components, we have worked hard through the recent past to provide adequate pay and benefits and increase bonuses for these high stress career fields.

Our citizen airmen are highly trained and motivated and will continue to be a vital force if we manage several factors: continue to provide adequate pay and benefits, communicate openly and often with their families, civilian employers, and civic leaders, assign PERSTEMPO across the force as evenly as possible, and provide predictability to the extent possible in the number and length of mobilizations and deployments.

71. Senator BILL NELSON. Secretary White, Secretary Johnson, and Secretary Roche, in addition, is the current mobilization causing you to rethink both the size and structure of the Reserve Forces?

Secretary WHITE. Much of the force found in the RC today is a result of decisions made to support the Total Force Policy and previous defense strategy. With the draw-down during the 1990s, the Army could not maintain all of its warfighting capability in the Active Force and decided to place many highly specialized capabilities in the RC. The Reserve components were configured and resourced to provide many specialized capabilities anticipated to be needed only in a protracted major theater war. Given the requirements of the new defense strategy and the high level of RC use, these force structure decisions are under review to determine the proper Active and Reserve Force mix.

We are also aware that the mobilization process is in need of overhaul to get ready units to the fight, with less notice, in less time, with reduced sacrifice and stress on the part of the mobilizing soldiers and their families. We are analyzing this process in order to institute these improvements. Additionally, we are further exploring the impact of active component (AC) and Reserve component transformation initiatives on mobilization and readiness before we make a final determination as to the proper AC/RC force mix.

Among the RC transformation initiatives is an endeavor to eliminate unready units by bringing structure levels down to better match end strength. This will dramatically increase readiness by focusing resources on high-demand, high-OPTEMPO

forces and creating rotational depth in capabilities such as civil affairs, psychological operations, biological detection, military intelligence, and military police units.

Secretary JOHNSON. With the exception of NCW mentioned previously, I think in fiscal year 2004, the size and structure of the Naval Reserve Forces is just about right. In the case of NCW, we are working to provide an active duty capability that will compliment the capabilities we already have in the Naval Reserve.

Secretary ROCHE. The Air Reserve component (ARC), both Reserve and Guard, have performed magnificently in our ongoing successes in Operations Enduring Freedom and Noble Eagle. It is no secret that we rely heavily on the capabilities that reside in the ARC. They have stepped up to the challenges just as our active component has. Though the Active and Reserve components have both been stressed in these endeavors, our risk management has spread those stresses fairly equitably. However, the entire Department of Defense is currently looking at all the emerging requirements of the new National Military Strategy which have been given such great impetus by the events of September 11. In the Air Force, we have made and will continue to make changes to our force mix (the ratio of a mission in the active and Reserve components) and force structure (how those forces are based and organized) as new needs are emerging to support that strategy.

We do have some mission areas in which we are making adjustments to mitigate some of those stresses and meet those emerging requirements. For example, the Air Force Reserve is transferring 15 combat search and rescue aircraft, a low-density-high-demand asset, to the active component. In turn, the Reserve unit will convert to KC–135 R-model tankers, a mission that has proven very successful in the Reserve component. The ARC will also be transferring 14 C–130 H2-models to our Air Force Special Operations Command to meet the post September 11 requirements. These adjustments will allow the active and Reserve components to maintain the new steady-state requirements without overusing our invaluable Reserve component. In short, we will continually rethink the entire air and space force as we lead our Defense's transformation efforts to meet the challenges of the 21st century.

72. Senator BILL NELSON. Secretary White, Secretary Johnson, and Secretary Roche, are the kinds of units that are in the various Reserve components the right ones? (For example, the USAF has "borrowed" thousands of Reserve Army troops to provide protection for air bases and other Air Force facilities due to the insufficient size of USAF security personnel units.)

Secretary WHITE. The Army's active and Reserve component force mix is the result of deliberate actions to balance risks and priorities in light of operational requirements as well as resource constraints. The Army continues to adjust its force structure based on the "1–4–2–1" force-sizing construct. The Army's force mix is designed to support the geographic combatant commander's requirements and is determined using the Total Army Analysis process. To stay within constant end strength levels, adding capabilities to the active force will require the transfer of some mission capabilities between the Active and Reserve Force. A number of options exist to reduce risk including the conversion of lower demand structure inside the active force; converting key capabilities held in the Reserve components, but needed intermittently; and changes in Reserve personnel management to increase access by enhancing volunteerism and diminishing involuntary mobilization.

Additionally, for the Program Objective Memorandum 2004–2009, over 19,500 spaces were programmed for change within the Active, Guard, and Reserve Force structure. Since fiscal year 2001, the Army has activated or has programmed to activate through fiscal year 2009, a total of 68 active, 102 National Guard, and 85 Reserve units that fall into these high-demand categories: aviation, chemical, civil affairs/psychological operations, and military police. The enhanced force capabilities address the most urgent needs.

Currently, the Office of the Secretary of Defense in conjunction with the Joint Staff have undertaken a study to improve operational availability of all military forces. As part of this study, the AC/RC mix is being studied in the context of short-notice, short-duration major combat operations. This study is incomplete, but will be continued as part of defense planning for fiscal year 2005 to determine any recommended force structure changes.

Secretary JOHNSON. Neither the Navy nor the Naval Reserve have been required to borrow units from the other Services to complete Navy missions. Therefore, the Naval Reserve does not require force structure adjustments in fiscal year 2004.

Secretary ROCHE. The events of September 11 and the subsequent global war on terrorism have changed the scope of many requirements. One of the most dramatic changes is the requirement for force protection particularly within the borders of the United States. The use of the Army National Guard to provide installation force protection is a short term fix while the Air Force pursues a number of initiatives to

both increase the number of security forces personnel as well as invest in transformational technologies to meet the new increased requirements. We must remember that U.S. soil has now become a new area of responsibility for the new combatant commander of NORTHCOM and the permanent adjustments to support homeland defense including our active, Air Force Reserve, and Air National Guard facilities are in the works.

In more general terms of the mission mix of active and Reserve components in the Air Force, we have made and will continue to make changes to our force mix (the ratio of a mission in the active and Reserve components) and force structure (how those forces are based and organized) as the new needs emerge to support the National Military Strategy that puts homeland security at the pinnacle of responsibilities. The Air Reserve component, both Reserve and Guard, have made huge contributions to our successes in Operations Enduring Freedom and Noble Eagle. They have stepped up to the challenges just as has our active component. Though the active and Reserve components have both been stressed in these endeavors, our risk management has spread that stress fairly equitably. We think we have the mix just about right although, in a few areas like force protection, we are currently making significant changes to the entire force—active, Reserve, and Guard.

AIR FORCE ACADEMY

73. Senator BILL NELSON. Secretary Roche, one woman who was raped at the Air Force Academy while she was a freshman there has contacted me. She learned the same man—a fellow cadet—had raped another woman 2 weeks earlier. They reported the crimes to the Office of Special Investigations, but he was never charged. One of the women left the Academy—the other still is a cadet. I also received a complaint from a woman at West Point who was assaulted in her dorm room by another cadet. She was urged not to make an issue of the attack, and eventually she was separated from the Academy. If, after a thorough investigation of the facts and you determine that crimes were committed, will you now pursue criminal charges against the perpetrators?

Secretary ROCHE. I have from the beginning made it clear that sexual assault is a crime and that those who commit sexual assaults are criminals who will be punished to the fullest extent of the law and for whom there is no place at the Academy or in the Air Force. It would be improper, though, for me to prejudge the disposition of any specific case. In general, our comprehensive review of sexual assault issues at the Air Force Academy includes examination of the investigation and disposition of sexual assault allegations. While our review is not complete, the information available so far indicates that with very few exceptions—perhaps no more than one—allegations reported to the Air Force Office of Special Investigations were properly investigated. However, if facts are developed in any case that were not appropriately considered in the original disposition decision, and if the Air Force still has jurisdiction over the alleged offender, prosecution under the UCMJ would be one of the options available to the cognizant chain of command.

74. Senator BILL NELSON. Secretary Roche, will you also provide the victims who left school before graduation an opportunity to again serve in the military?

Secretary ROCHE. Cadets who reported sexual assaults have subsequently left the Academy for a wide variety of reasons; in some cases those reasons were not related to the alleged sexual assault. I therefore cannot provide a "one size fits all" answer to this question. The Academy, and other Air Force accession sources, will consider requests for reentry on a case-by-case basis.

75. Senator BILL NELSON. Secretary Roche, who is responsible for allowing the allegations of rape to go unanswered and for failing to provide the women cadets the care and attention they needed after such a traumatic event?

Secretary ROCHE. With several reviews and investigations of the Academy situation incomplete, we cannot yet be sure we know all the facts, and we must not rush to judgment as to the personal responsibility of any individual. I intend to take another look at this issue when all the relevant information is in. As you are aware, I have replaced the leadership team at the Academy. I did so because I believe new leadership can most effectively implement the changes General Jumper and I have directed at the Academy in our Agenda for Change, announced on March 26, 2003, and any future changes we may find appropriate after receiving the reports of the Working Group, the Air Force and DOD Inspectors General, and the review group recently mandated by Congress. My focus has been, and remains, on fixing the problem.

CANCELLATION OF JOINT SIMULATION SYSTEM

76. Senator BILL NELSON. Secretary White, Secretary Johnson, and Secretary Roche, I have been made aware of a DOD Program Decision Memorandum (PDM) directing the cancellation of the Joint Simulation System (JSIMS) program in fiscal year 2004 and through the FYDP. I and other members on the Armed Services Committee who care deeply about the pace and scope of efforts to increase joint experimentation, joint training, creation of a standing joint operational headquarters, and joint requirements and acquisition validation, are troubled by this development. The program is intended to provide a joint simulation capability to "integrate" Service simulations allowing for joint training and experimentation at strategic, operational, and tactical levels. This kind of tool is essential to any effort to move the military establishment to greater joint training, doctrine, and experimentation. What is your position on the cancellation of this program and your related Service simulation programs?

Secretary WHITE. I do not believe the cancellation of the program will have an impact on joint training. The fiscal year 2003 funding was retained so that the program manager could deliver the Block I software to the Joint Warfighting Training Center (JWFC) for their use to conduct Joint Task Force component level training. The Army also reprogrammed $9.9 million this year to support the Block I effort. The Block I software should enable the JWFC to maintain the software to support joint training, doctrine, and experimentation. Moreover, the PDM directed an analysis of alternatives to identify a cost-effective method of meeting future joint and service training requirements. That will either be JSIMS Block II and III, or a different model. The impact on the Army simulation is greater, however, because the Block I software provides little utility for service use. To this end, we believe it is better for the Army to pursue its own Title X solution with the clear intent of linking to the future joint simulation once that simulation has been determined and matured.

Secretary JOHNSON. Navy supports the decision to cancel the JSIMS for service use. While an excellent concept, JSIMS experienced cost overruns and delays, it would not meet all of the requirements in the Operational Requirements Document, nor would it provide for joint experimentation.

In order to continue support of wargaming requirements at the Battle Group and Amphibious Ready Group staff level, Navy will reprogram existing funds to upgrade the existing Enhanced Naval Wargaming System (ENWGS), which creates a track database in Global Command and Control System-Navy.

Navy has also demonstrated the ability to link Joint Semi-Automated Forces (JSAF) to the Battle Force Tactical Trainer (BFTT) system and stimulate ship's combat systems in a Battle Group sized modeling and simulation (M&S) training event. Navy will build on this positive experience in an effort to standardize and improve in-port and underway virtual exercises as JSAF allows federation with M&S training and experimentation systems of the other Services.

Secretary ROCHE. The Air Force accepts the fiscal trade-offs that led to the Office of the Secretary of Defense PDM decision on the JSIMS program. Impacts to related Air Force simulation programs will require funding adjustments to maintain and improve legacy systems in current use for service and joint training, doctrine, and experimentation.

77. Senator BILL NELSON. Secretary White, Secretary Johnson, and Secretary Roche, are you satisfied that cancellation of the JSIMS program is necessary to accelerate establishment of a Joint National Training Capability or does it complicate achieving such an objective?

Secretary WHITE. Cancellation of the JSIMS program should not complicate achieving a Joint National Training Center capability. Constructive simulations are only one piece of the Joint National Training Center (JNTC) effort and current simulations will support near-term JNTC requirements until a joint solution is built to meet that requirement.

Secretary JOHNSON. No. A JNTC does not require the JSIMS. Alternatively funded programs exist, and they have the capability JSIMS intended to provide a JNTC. Also, the maritime capability of the initial version of JSIMS does not equal the capability of the program it is intended to replace, thus forcing the continued funding of the legacy program.

Secretary ROCHE. The OSD Program Decision Memorandum in question covered a range of resource decisions, including the cancellation of JSIMS and the establishment of JNTC. I would defer to OSD to comment on whether the two decisions were related.

The JSIMS decisions does include provisions for an Analysis of Alternatives to determine a way ahead for joint simulation, so it is clear that joint simulation remains a departmental goal.

78. Senator BILL NELSON. Secretary White, Secretary Johnson, and Secretary Roche, from your perspective, what are the priority requirements for a true joint national training capability and the simulation systems necessary to make it possible?

Secretary WHITE. Joint training must be capabilities-based and responsive to the mission requirements of the combatant commanders. It must be adaptable to meet both joint and service mission planning and rehearsals requirements across the full spectrum of military, multinational, interagency, and intergovernmental operations. To this end, it should have live, virtual, and constructive components that can be integrated to optimize the training for all audiences.

Secretary JOHNSON. The following elements are required to provide true joint training:

- Access to joint command and control training environments for commanders and their staffs at all levels;
- The ability to train joint tactical interoperability during the Inter-Deployment Training Cycle (IDTC) accomplished via participation by other Service personnel and units in exercises;
- Modeling and simulation assets operated in accordance with Service specific or joint tactics, techniques, and procedures; and
- Investment in connectivity infrastructure and software interfaces between service systems in order to replicate the joint environment in live, modeling, and simulation environments. Services must agree on architectures and databases.

Secretary ROCHE. We envision Joint National Training Capability (JNTC) requirements to focus on the three following areas: First, development of a network of high-fidelity simulators and training devices connected across a long-haul network, that enable warfighters to train together as they would fight even though separated geographically by great distances. Second, JNTC must enhance existing service interoperability training by synchronizing events at major training centers (e.g. Red Flag, Virtual Flag, Air Warrior, Blue Flag), with an end-state of fully integrated and standardized joint interoperability training. Third, JNTC must develop mechanisms to measure joint training effectiveness. These mechanisms include range instrumentation, certifiable joint standards, "ground truth" through data availability, and after action review incorporated into air Force and joint lessons learned. Ultimately, the intent is to train "the way we intend to fight" with JNTC enhancing execution of air power in support of the Joint Force Commander.

Live, virtual, and constructive simulations, at the tactical and operational levels of war integrated within distributed systems architecture, will be the integral elements of the JNTC. The Air Force continues to work closely with the other Services, unified commands, and the Office of the Secretary of Defense to identify requirements and cost-effective solutions to implement this initiative.

QUESTIONS SUBMITTED BY SENATOR EVAN BAYH

EXPLOSIVE SAFETY ARCS

79. Senator BAYH. Secretary Johnson, many of our military installations' missions are being encumbered by community encroachment. This has been highlighted by flight restrictions at certain military installations and, in the extreme, by the controversy of the Navy training at Vieques. Encroachment at ordnance facilities can take a less visible, but extremely dangerous form. Those installations that store large quantities of ordnance items may have explosive safety arcs that extend past their boundaries into the surrounding community. In this era of heightened security, total containment of explosive arcs within military installation boundaries is even more critical.

When all of the explosive storage magazines are fully loaded at our ordnance facilities, do the explosive safety arcs extend beyond the installation's boundaries?

Secretary JOHNSON. The encumbrance of off-installation properties by naval ordnance storage facilities is not permitted, except under strictly controlled circumstances in support of operational missions, and only in accordance with the explosives safety criteria detailed in Department of Defense Ammunition and Explosives Safety Standards (DOD 6055.9–STD) and Naval Sea Systems Command (NAVSEA) OP 5, "Ammunition and Explosives Safety Ashore Regulations for Handling, Storing, Production, Renovation, and Shipping". An example of those cir-

cumstances is unsuitable terrain for development (i.e., wetlands, topography, etc.) or restricted access such as Government-owned land that is not open to the public.

80. Senator BAYH. Secretary Johnson, as communities have built up closer to our ordnance activities, have they entered the explosive safety arc areas?

Secretary JOHNSON. As a general rule, off-installation areas are not permitted to be encumbered by Explosive Safety Quantity Distance (ESQD) arcs from naval ordnance storage facilities. Under the Department of Defense Ammunition and Explosives Safety Standards (DOD 6055.9–STD) the Navy can present a case for a waiver wherein explosive arcs can extend beyond station boundaries if a risk analysis demonstrates low risk to those exposed. If a waiver is granted there is a requirement that the risk be closely monitored and explosive arcs reduced if the risk increases. Occasionally, temporary event waivers are granted for specific evolutions, but these are closely monitored and duration is limited to the absolute minimum.

81. Senator BAYH. Secretary Johnson, have the ordnance activities had to download from full capacity to bring in the explosive safety arcs?

Secretary JOHNSON. There have been cases in the past where changes external to the naval ordnance storage facility have caused an encumbrance of off-installation areas. Examples include off-installation zoning changes or where updates to explosives safety criteria (outlined in Department of Defense Ammunition and Explosives Safety Standards (DOD 6055.9–STD) and Naval Sea Systems Command (NAVSEA) OP 5, "Ammunition and Explosives Safety Ashore Regulations for Handling, Storing, Production, Renovation, and Shipping") caused an encumbrance of off-installation areas. In these cases MILCON projects have reapportioned the explosives storage capability on station or explosives limits for ordnance facilities were reduced so that Explosive Safety Quantity Distance (ESQD) arcs would no longer encumber off-installation areas.

82. Senator BAYH. Secretary Johnson, is this "ordnance encroachment" going to be a factor in the BRAC criteria?

Secretary JOHNSON. The BRAC 2005 selection criteria are currently in development. The BRAC 2005 law requires that the Secretary of Defense must publish for comment, and transmit to Congress, the proposed criteria no later than December 31, 2003. The final criteria must be published and transmitted to Congress no later than February 16, 2004.

[Whereupon, at 12:34 p.m., the committee adjourned.]

DEPARTMENT OF DEFENSE AUTHORIZATION FOR APPROPRIATIONS FOR FISCAL YEAR 2004

THURSDAY, MARCH 13, 2003

U.S. SENATE,
COMMITTEE ON ARMED SERVICES,
Washington, DC.

UNIFIED AND REGIONAL COMMANDERS ON THEIR MILITARY STRATEGY AND OPERATIONAL REQUIREMENTS

The committee met, pursuant to notice, at 10:20 a.m., in room SH–216, Hart Senate Office Building, Senator John Warner (chairman) presiding.

Committee members present: Senators Warner, Inhofe, Roberts, Collins, Levin, Reed, Akaka, Ben Nelson, Dayton, Bayh, and Pryor.

Committee staff members present: Judith A. Ansley, staff director.

Majority staff members present: Charles W. Alsup, professional staff member; Brian R. Green, professional staff member; William C. Greenwalt, professional staff member; Mary Alice Hayward, professional staff member; Gregory T. Kiley, professional staff member; Patricia L. Lewis, professional staff member; Lucian L. Niemeyer, professional staff member; Lynn F. Rusten, professional staff member; Joseph T. Sixeas, professional staff member; Scott W. Stucky, general counsel; and Richard F. Walsh, counsel.

Minority staff members present: Evelyn N. Farkas, professional staff member; Richard W. Fieldhouse, professional staff member; and Christina D. Still, professional staff member.

Staff assistants present: Leah C. Brewer, Andrew W. Florell, and Nicholas W. West.

Committee members' assistants present: Cord Sterling, assistant to Senator Warner; James Beauchamp, assistant to Senator Roberts; James P. Dohoney, Jr., assistant to Senator Collins; D'Arcy Grisier, assistant to Senator Ensign; Mieke Y. Eoyang, assistant to Senator Kennedy; Christina Evans, assistant to Senator Byrd; Elizabeth King and Neil D. Campbell, assistants to Senator Reed; Richard Kessler, assistant to Senator Akaka; William K. Sutey and Douglas Bush, assistants to Senator Bill Nelson; Eric Pierce, assistant to Senator Ben Nelson; William Todd Houchins, assistant to Senator Dayton; Todd Rosenblum, assistant to Senator Bayh; Andrew Shapiro, assistant to Senator Clinton; and Andy York, assistant to Senator Pryor.

OPENING STATEMENT OF SENATOR JOHN WARNER, CHAIRMAN

Chairman WARNER. Good morning. The committee will come to order. We tender our apologies to our distinguished panel of witnesses and others who have gathered here this morning for this very important hearing. It was a historic moment in the Senate chamber this morning when our very much beloved and distinguished chaplain since 1995 retired such that he could go back to his home and care for his family, and that was followed by two votes. Of course we get paid by the vote, and therefore we have a way of being there for those votes.

The committee meets today to receive testimony from Admiral Thomas Fargo, Commander, U.S. Pacific Command; General Leon LaPorte, Commander, U.S. Forces Korea; and General James Hill, Commander, U.S. Southern Command, with regard to their area of responsibilities (AOR) and particularly their military strategy and operational requirements. Also, whether Congress, in their judgment, has fulfilled our obligation to give them the support that they require. This is the first in a series of hearings that this committee conducts annually to receive the testimony from our Nation's combatant commanders.

Gentlemen, you are our warfighters. With great distinction and humility, you have carried out your missions thus far and will continue to do so. We welcome your insight on developments in your areas of responsibility as well as your assessment of the fiscal year 2004 defense budget requests.

Each of our witnesses has assumed his current assignment within the past year. We welcome you on your first posture hearing before this committee. Each of you has a long and distinguished record of service to our country and I thank you and I thank your families on behalf of Congress. We ask you to convey to the fine men and women under your commands the gratitude of the committee and indeed the entire Nation for their professionalism and dedication to service.

Gentlemen, the committee values your unique contributions and perspectives on the important issues we are addressing this morning. Your insight provides us with the important information we need to make the decisions regarding policies and programs that affect each of your areas of responsibility. This is of particular significance this year due to the ongoing global war on terrorism, a potential all-out war with Iraq, and this Nation's other global responsibilities, of course the Korean Peninsula being foremost, General LaPorte, among the priorities.

I will put the balance of my statement in the record to achieve some efficiency of time. I thank you.

Senator Levin.

[The prepared statement of Senator Warner follows:]

PREPARED STATEMENT BY SENATOR JOHN WARNER

The committee meets today to receive testimony from Admiral Thomas Fargo, Commander of U.S. Pacific Command; General Leon LaPorte, Commander of U.S. Forces Korea; and General James Hill, Commander of U.S. Southern Command, on their military strategy and operational requirements.

This is the first in a series of hearings this committee will conduct over the next few weeks to receive testimony from our Nation's combatant commanders. Gentle-

men, you are our warfighters. We welcome your insight on developments in your areas of responsibility (AOR), as well as your assessment of the fiscal year 2004 defense budget request.

Each of our witnesses has assumed his current assignment within the past year. We welcome you on your first posture hearing before this committee. Each of you has a long and distinguished record of service to our country. I want to thank you on behalf of the committee and the Nation for your leadership, dedication, and service.

We ask you to convey to the fine men and women under your commands the gratitude of the committee and our entire Nation for their professionalism, their dedication, their service and the sacrifices that they and their families are making on behalf of the American people.

Gentlemen, the committee values your unique contributions and perspectives on the important issues we are addressing this morning. Your insight provides us with important information we need to make decisions regarding policies and programs that affect each of your areas of responsibility. This is of particular significance this year due to the ongoing global war on terrorism, a potential all-out war with Iraq, and this Nation's other global responsibilities in which each of you play a critical role.

In a development of utmost concern to all of us, tensions have risen on the Korean peninsula over the past few months, following the admission by North Korea in October 2002 that it is operating a secret nuclear program based on uranium enrichment, and its subsequent decision to withdraw from the Agreed Framework and the Nuclear Non-Proliferation Treaty (NPT).

North Korea has now restarted its reactor at Yongbyon and could soon begin reprocessing operations to extract weapons-grade plutonium. Resumption of North Korea's nuclear weapons program poses a grave threat to regional and international stability. Some have accused the administration of being "resigned" to a nuclear North Korea. I respectfully disagree. Secretary of State Colin Powell stated just last week: "The position of the United States is we don't want to see nuclear weapons in the Korean peninsula. It is also the position of China. It is also the position of Japan and South Korea." The United States, in conjunction with its friends and allies in the region, is working responsibly to resolve this situation through diplomatic means.

I look forward to hearing Admiral Fargo's and General LaPorte's assessment of the situation on the Korean Peninsula. I am particularly interested in any changes in North Korea's military posture, as well as your assessment of North Korea's nuclear program, ballistic missile and proliferation activities, and the readiness of our forces to respond to any possible developments on the peninsula both now or in the future.

In the Asia-Pacific region, the global war on terrorism is being waged in the Philippines, with U.S. troops deployed to that nation to help the Philippine Government in its fight against terrorist groups. Recently, our two governments have been discussing a new mission in the Philippines that would increase the role of U.S. forces, to include a possible combat role. I look forward to hearing an update on the status of discussions with the Philippine Government regarding this potential new mission.

Last, but certainly not least, we look forward to General Hill's assessment of the state of affairs in Latin America. Of particular concern is the situation in Colombia, where the U.S. is providing substantial amounts of aid to helping that nation eradicate illicit drug cultivation. Our military is involved in this effort. We look forward to General Hill's assessment of the mission.

We welcome our witnesses this morning and look forward to their testimony.

Senator Levin.

STATEMENT OF SENATOR CARL LEVIN

Senator LEVIN. Mr. Chairman, I will do the same thing. I will just join you in welcoming our witnesses and, thank them for their tremendous service to our Nation. The responsibilities are awesome and growing in each of their areas. We have new challenges and I think growing challenges.

I would just ask that my statement be made part of the record.

[The prepared statement of Senator Levin follows:]

PREPARED STATEMENT BY SENATOR CARL LEVIN

We meet today to discuss military strategy and operational requirements in two critical parts of the world—Asia and Latin America. In Asia, we are faced with a full-blown political-military crisis on the Korean peninsula. The North Koreans admitted that they have a secret uranium-based nuclear program, in contravention of four existing agreements to keep a nuclear-weapons-free Korean peninsula. In an attempt to force the United States to meet with them, the North Koreans have taken a series of escalatory steps, bringing us to a stalemate fraught with the danger of miscalculation.

The North Koreans expelled the International Atomic Energy Agency (IAEA) inspectors who were monitoring the plutonium-based program that had been successfully frozen by the Agreed Framework. They removed the seals and monitoring cameras from the plutonium facilities, announced their withdrawal from the Nonproliferation Treaty, and a few weeks ago they restarted the nuclear reactor at the Yongbyon complex. We remain highly concerned that their next step might be starting up their plutonium reprocessing facilities, which could yield five to six nuclear weapons in a matter of months.

The administration continues to refuse to speak directly with the North Koreans, thereby denying us the benefit of communicating to the North Korean government what actions are unacceptable, and of obtaining, at least, some more information about their objectives. I believe that we ought to talk to them. Talking is not appeasement. It is the only feasible avenue right now for preventing them from developing more nuclear weapons and possibly exporting them to the highest bidder. If we are serious about working with our allies on this matter, we would do so, because our allies are urging us to talk to North Korea.

Also related to Korea, the Washington Post carried a story on page 1 of its March 4th edition concerning the incident in which four North Korean jets intercepted a U.S. reconnaissance aircraft in international airspace over the Sea of Japan on Sunday, March 2. According to the story, defense officials stated that "At least one of the North Korean planes directed its radar to identify the U.S. aircraft as a target and may have 'locked on,' a step short of shooting a missile." Additionally, on March 8, the New York Times carried a page 1 story that said the North Korean jets "were trying to force the (U.S.) aircraft to land in North Korea and seize its crew" according to a senior defense official. I hope that our witnesses can clarify the following: 1) Did the North Korean aircraft "lock on" to the U.S. planes; 2) Did the North Koreans attempt to force down the U.S. aircraft; and 3) Did the North Koreans take any action that could be construed as preparatory to shooting down the U.S. aircraft?

At the same time that we are faced with the threat from North Korea, the administration's response to it has greatly stressed our already evolving relationship with South Korea. So, I look forward to hearing from General LaPorte about our latest efforts with the South Koreans to examine the military alliance and to address the respective roles and missions of our militaries, as well as U.S. force structure and basing in South Korea.

I am also interested in hearing about our work to help train the Philippine army to more effectively fight terrorists and insurgents. How successful have we been in achieving a key objective—helping them develop an ability to eliminate the kidnap-for-ransom Abu Sayyaf Group?

Were we were planning to change our role in the Philippines—as has been reported—in a manner that would have contravened the Philippine constitution? If so, Congress should have been consulted, as Secretary Wolfowitz said we would, in advance of any change in our mission. I certainly expect that we will be consulted if there are any changes in the future.

Last month fighting broke out again between the Philippine government and one of the other groups operating in the southern Philippines, the Moro Islamic Liberation Front (MILF). In the past this 25,000-strong group has indicated that they would take military action if U.S. troops encroached on their territory. I am concerned about the possibility that our activities in the Philippines might put our troops at risk from other groups like the MILF.

So, I look forward to hearing about our future training plans from Admiral Fargo.

In Latin America, one of the greatest political-military challenges we face is the effort to fight drug production and trafficking. Colombian President Uribe says he is committed to confronting the Revolutionary Armed Forces of Colombia—the FARC—as well as the National Liberation Army—the ELN—and the paramilitaries, head-on. He has taken some important steps toward developing the strategy and resources to wage an enduring campaign against the FARC, ELN, and paramilitaries. I look forward to hearing from General Hill how our training efforts are com-

plementing and leveraging his strategy, and if the existing personnel and other limitations on U.S. participation should be maintained. I am also interested to hear about what we are doing throughout the Andean region to address the potential of spillover of coca and heroin production and trafficking to neighboring countries.

I look forward to testimony from our witnesses on these issues and other topics of concern to them.

Chairman WARNER. Thank you very much, Senator Levin. Both of our statements in their entirety will go in the record, and each of the written statements submitted to the committee by the witnesses in their entirety will go into the record. We will just proceed to Admiral Fargo. Why don't you lead off.

STATEMENT OF ADM. THOMAS B. FARGO, USN, COMMANDER IN CHIEF, UNITED STATES PACIFIC COMMAND

Admiral FARGO. I thank you, Mr. Chairman, Senator Levin, and members of the committee. It is great to be with you again.

The men and women of the U.S. Pacific Command (PACOM) are providing superior service to the Nation in the Asian Pacific region and around the world, and the high readiness of our forces today can be directly attributed to the generous support of this esteemed body and of the American people as a whole.

Dramatic events of the past year have brought into focus new national security demands for the 21st century, and we have outlined five near-term priorities for the Pacific Command to meet those demands. I would like to briefly highlight these priorities for you.

The first is the global war on terrorism and we are building momentum in the war on terrorism in the Pacific theater. In addition to providing forces to the Central Command for Operation Enduring Freedom, we are focused on two primary terror threats related to al Qaeda, the Abu Sayyaf Group (ASG) in the Philippines, and the Jemaah Islamiyah, an al Qaeda surrogate spread throughout Southeast Asia.

Last year we responded to the request of the Philippines to provide training, advice, and assistance to the Armed Forces of the Philippines in southern Mindanao, including Basilan Island, then an Abu Sayyaf stronghold. This 6-month effort provided a template to help the Republic of the Philippines develop a lasting counterterrorist capability. As a result, we have seen the beginning of stability on Basilan, the terrorists have been separated from the people, and normal activity, like children going back to school, has returned.

There is clearly more to be done. The ASG is reconstituting, have been active in bombing campaigns, and are looking for outside support, and we have an active exercise and a security assistance program in place to contribute to build the counterterrorist capability that the Armed Forces of the Philippines needs.

The Jemaah Islamiyah, or JI, has had cells in Singapore, Malaysia, and Indonesia, has attacked American and other interests throughout the region. This group was also responsible for the tragic Bali bombing which killed some 200 people, many of them Australian. We are focused on the JI and are pleased with the cooperation of our friends in the region, including the investigations by the Government of Indonesia to apprehend and bring these terrorists to justice. Over 130 JI members have been arrested or detained to date.

Our Service components are enjoying the highest readiness that I can recall in my 32 years of service. For example, in January, all six Pacific Command aircraft carriers were underway simultaneously, five with full air wings embarked. I can provide similar examples for all the Services in the Pacific componency.

Our warfighting readiness will benefit from future developments of missile defenses, increased stocks of precision-guided munitions, improved anti-submarine warfare capabilities, increased intelligence, surveillance, and reconnaissance assets, and improved air and sealift to speed our forces to future conflicts.

Our quality-of-service concept in the Pacific includes the traditional quality-of-life initiatives plus the facilities, the spare parts, and the information technology necessary for satisfaction and efficiency on the job. You should know that I am a big fan of this new and present generation. They are smart, engaging, and unafraid of hard work, and they well represent our Nation and its values around the globe.

Morale and retention are high and we appreciate your support of the defense budget, including the improved readiness funding and the pay raises that demonstrate part of your continuing commitment to our people.

Our longstanding bilateral alliances in the Pacific, our solid friendships, and the presence of our forward-deployed combat forces are the constants that ensure the region's peace and stability. Northeast Asia is a center of gravity for our Asian Pacific security and our alliance with Japan is fundamental to that security. Japan has been aggressive and a strong partner in the global war on terrorism. In my judgment our relationship with Japan has never been stronger.

Our alliance with South Korea is also solid. It has been the basis for peace and prosperity in South Korea for 50 years and will continue to serve our mutual security interests even after the lessening of tensions on the Peninsula. North Korea's provocative actions over the past 6 months have not changed that fundamental truth.

Australia is our special partner and friend in the Pacific. The Australians have demonstrated courage and leadership in regional efforts from Afghanistan to Bali to East Timor and we continue to work to eliminate barriers to interoperability between our forces.

Our relationships with Thailand and the Philippines, as I have already described, also demonstrate cooperation and partnership in regional and global security initiatives. The contributions by good friends in the region are really numerous. Singapore, Malaysia, New Zealand, and more recently India have all participated in the global war on terrorism, with contributions ranging from intelligence sharing to over-flight access to combat forces.

Our final priority is to promote change and improve our Asian-Pacific defense posture for the future. Pacific Command is synchronizing transformational efforts to produce rule improvements in six key areas, which include: first, updating our plans to meet current and emerging threats within our new force planning construct.

Second is strengthening command and control relationships, including maturing the standing joint force headquarters concept.

Third is improving our force posture and our footprint in ways that improve our ability to respond to threats more rapidly while minimizing adverse impact on our allies and friends.

Fourth, we need to increase capabilities for immediate employment, and here I am talking about once again missile defense, global strike capabilities, the nuclear-powered cruise missile attack submarine (SSGN), and improvements in intelligence assets to increase our warning of potential threats.

Fifth, we need to harness those capabilities in new operating patterns and concepts, such as the Navy's expeditionary strike group, the Army's Stryker Brigade Combat Team, and high-speed vessels.

Finally, increasing opportunities for diversified access and in or out logistics to reassure allies, build reliable options for contingency planning, and improve training alternatives to relieve the pressure on overstressed locations.

These six areas encompass the primary focus of our transformational efforts in the Pacific. On behalf of the men and women of the Pacific Command, let me offer my sincere appreciation for your support and for the opportunity to report on the posture of the United States Pacific Command. I certainly look forward to your questions. Thank you.

[The prepared statement of Admiral Fargo follows:]

PREPARED STATEMENT BY ADM. THOMAS B. FARGO, USN

INTRODUCTION

Mr. Chairman and members of the committee: On behalf of the men and women of the United States Pacific Command, I thank you for this opportunity to testify on security in the Asia-Pacific region.

Having served as Commander, United States Pacific Command (CDRUSPACOM) over the past year, and previously serving as Commander, United States Pacific Fleet for 30 months, has fortified my belief that a secure, peaceful, and prosperous Asia-Pacific region is of paramount importance to our country and the world. In contrast, an Asia that is uncertain presents grave dangers to our Nation and the security of our friends and allies in the region.

We have a number of security concerns, and they are addressed clearly in our National military strategy and supporting guidance:

- Conflict on the Korean Peninsula
- Miscalculation over the Taiwan Strait or in Kashmir
- Transnational threats like terrorism, the proliferation of weapons of mass destruction (WMD), and illegal drug trade
- Instability associated with a failing nation-state or humanitarian crisis, and
- Ensuring the readiness of our forward deployed forces in the region.

We are not facing these concerns alone. Since the terrorist attacks of 11 September and over the past year, we have had unprecedented cooperation in combating and supporting the global war on terrorism and backing from concerned neighbors to stop the proliferation of weapons of mass destruction. We have continued to build on the longstanding bilateral alliances and friendships necessary to deter regional aggression and coercion, dissuade military competition, and assure our allies and friends of our commitment to them and the region. We've accomplished this by our forward presence in the theater and by the actions of our forces as they execute tasks and operations in support of our Nation's security. In short, we have begun a journey to "operationalize" the strategic guidance we have received. Our destination is a peaceful, stable, and prosperous Asia-Pacific region.

Last year during my confirmation hearing, I provided five broad priorities for Pacific Command. Since then, I've used the priorities as a roadmap for focusing the command, directing operational initiatives and assessing progress. Today, my intent is to provide you an update on these priorities as they pertain to the defense posture of the U.S. Pacific Command (USPACOM).

Sustaining and Supporting the Global War on Terrorism (GWOT)

Our highest USPACOM priority is sustaining and supporting the GWOT. This includes not only operations in the Pacific, but also as a force provider to Operation Enduring Freedom-Afghanistan (OEF–A), or wherever international terrorism might threaten our interests worldwide. Although we don't have any Government-supported sanctuaries for terrorists in the Pacific, terrorist cells and organizations that operate in the region provide unique challenges to USPACOM and to the countries in which they proliferate.

GWOT Update. Regional and local terrorist groups with ties to al Qaeda pose the most dangerous threat to U.S., allied, and friendly interests in the USPACOM Area of Responsibility (AOR). Bolstered by financial and technical support from al Qaeda, the Jemaah Islamiyah (JI) network and the Abu Sayyaf Group (ASG) in the southern Philippines have demonstrated their capability to attack U.S. and Western interests. Our task, in coordination with other agencies, is to ensure these terrorists do not destabilize established governments in the region or threaten Americans or our friends. Regional alliances and partnerships are critical to achieving both our short-term goal of eradicating regional terrorist groups and our long-term goal of establishing a security environment throughout the Asia-Pacific region that rejects terrorism and addresses the factors that breed terrorists.

Southeast Asia witnessed a number of terrorist acts in 2002, including the bombings of tourist nightclubs on the Indonesian island of Bali on 12 October that killed nearly 200 civilians, including seven Americans, and a series of bombings across the Philippines also in October. We believe the ASG was responsible for the attacks in the Philippines that killed at least 22 people—including a U.S. serviceman—and wounded over 200 others. Coincident investigations and arrests in Malaysia, Singapore, Indonesia, Thailand, the Philippines, and Australia have revealed an extensive, sophisticated network, centered on the Jemaah Islamiyah, that continues to plan attacks against U.S. and Western diplomatic interests and less defensible commercial or tourist venues across the region. We have credible information that al Qaeda has long sought to expand its movement in Southeast Asia. By leveraging its connections with sympathetic groups and individuals, some previously trained in Afghanistan, al Qaeda seeks to expand its network and obtain the support of local proponents in establishing a regional pan-Islamic state supportive of radical Islamic ideology.

To meet this challenge, USPACOM and regional governments have strengthened counterterrorism cooperation over the past year. Regional governments have made progress achieving counterterrorism goals through legislation that combats terrorism and its resource methods, by capturing and detaining terrorists, and through interagency coordination and intelligence sharing. To date, over 100 terrorist suspects have been arrested or detained, primarily in Malaysia, Singapore, Philippines, and Indonesia. The U.S. Government has designated JI, the ASG, and the Communist Party of the Philippines/New People's Army as Foreign Terrorist Organizations. This action enables us to identify and freeze the financial assets of these groups and sets the conditions for their isolation. Governments in the region are also increasing their cooperation with regional counterparts—forming bilateral and multilateral alliances to combat terrorist activity. ASEAN's plan to establish a regional Counterterrorism Center in Kuala Lumpur, Malaysia is a noteworthy example. USPACOM continues to support the efforts of these nations to strengthen the rule of law, improve the effectiveness of regional armed forces, and promote democratic ideals of pluralism and religious tolerance. Our long-term effort is to use international, regional, and local relationships to defeat terrorism through coordinated diplomacy, education, information operations, and the use of force when necessary. This is our challenge—and we will meet it.

We've learned a great deal about terrorism in Southeast Asia over the past year: how these entities organize, how they operate, and what they seek to achieve. We realize we have much more to learn and to accomplish. I am convinced that our best approach is to disrupt terrorist activities where we can while helping build our regional partners' capabilities to do the same. It is a team effort.

To better synchronize our efforts in combating terrorism in the Pacific, we have assumed the offensive while putting in place an "active defense." Offensively, we established a full time Joint Interagency Coordination Group for Counter Terrorism (JIACG–CT) at USPACOM Headquarters. Defensively, we designated our Army component, U.S. Army Pacific (USARPAC), as our Joint Rear Area Coordinator (JRAC) for Hawaii; Commander, Pacific Representative—Guam (COMPACREPGUAM) as our JRAC for Guam; and Commander, Alaska Command (ALCOM) as Joint Task Force—Alaska. These command and control constructs are successfully prosecuting the war on terror while protecting our forces and critical infrastructure.

JIACG–CT. We have established a Joint Interagency Coordination Group for Counter Terrorism (JIACG/CT) to coordinate DOD and other Government agency (OGA) activities in USPACOM AOR, develop targets for future military or OGA operations, plan USPACOM regional and country counterterrorism (CT) campaigns, and enhance U.S. and partner nation CT capabilities in support of national objectives in the GWOT. It is an all-encompassing and focused effort, where we are now integrating our Theater Country Teams to assess host-nation concerns and necessary conditions to proceed with our CT campaign. This team endeavor has been extremely successful as demonstrated by the actions of regional countries that are supporting U.S.-led efforts in Afghanistan and regional operations, like those in the Philippines, while conducting CT operations in their own countries—all in the past year.

Forward and Deployed Forces. Within the last year, the U.S.S. *Kitty Hawk, John C. Stennis, Carl Vinson, Constellation,* and *Abraham Lincoln* battlegroups; maritime patrol aircraft; U.S.S. *Peleliu, Bonhomme-Richard, Belleau Wood,* and *Tarawa* Amphibious Ready Groups with the 11th, 13th and 15th Marine Expeditionary Units; 5th, 11th, and 13th Air Forces; and the 509th Bomber and 40th Air Expeditionary Wings have deployed in support of major roles in OEF–A and operations in the Persian Gulf. Further, many USPACOM countries continue to provide tangible support to OEF–A within their means. Australia, India, Japan, Korea, Malaysia, New Zealand, Philippines, Singapore, and Thailand have all contributed support ranging from overflight, access and basing to escort, logistics, and troops on the ground. We appreciate their many contributions and valuable cooperation.

Regional Counterterrorism. Information sharing between countries in the Pacific has provided unprecedented insights into the Jemaah Islamiyah (JI) and al Qaeda networks in the Asia-Pacific region. As a result, Singapore and Malaysia have arrested dozens of members of JI, the primary transnational terrorist organization in the Pacific with links to al Qaeda. Indonesia has arrested suspected terrorist leaders and bombing suspects since the October bombings in Bali. However, Indonesia has a difficult problem and has factions that do not want to aggressively investigate groups within Indonesia sympathetic to al Qaeda. We need to cooperate more effectively at all levels with Indonesia on terrorism. An International Military Education and Training (IMET) program for Indonesia is key to our engagement effort.

The Government of the Republic of the Philippines (GRP) continues to attack terrorist infrastructure and capabilities in the Philippines and throughout the region. President Gloria Macapagal-Arroyo is firmly on our side in the GWOT—strongly supporting the effort. Our advice and assistance, including our maintenance and training packages provided under security assistance authorities, are improving the Armed Forces of the Philippines (AFP) CT capabilities. Operation Enduring Freedom-Philippines (OEF–P) serves as the ideal vehicle for U.S. forces to advise and assist the AFP in the development of skills necessary to fight terrorists. Additionally, the infrastructure improvements to roads, hospitals, and schools and the construction of water wells on Basilan Island under DOD's humanitarian and civic assistance program provide positive impacts on local communities—highlighting America's positive role while assisting the Philippines in dealing with the socio-economic causes that entice disenfranchised Filipinos to support terrorist activities. As a result of this well integrated operation, the ASG is on the run on Basilan and its influence with the local populace there has been dampened.

USPACOM's Antiterrorism Program is proactive and dynamic in its approach to protect our people and resources throughout the Pacific. It is an "active defense" because it has offensive qualities. Since 11 September, we have come a long way in better protecting DOD personnel and critical infrastructure in the Asia-Pacific region.

Joint Rear Area Coordinators (JRACs) in Alaska, Guam, Hawaii, Japan, and Korea are the focal points for force protection, coordinating security measures and intelligence fusion among the different services in their AORs. JRACs provide the command and control construct to synchronize our DOD anti-terrorism/force protection (AT/FP) efforts for military installations and property with Federal, State, and local agencies and with the host nations in the cases of Japan and Korea. USPACOM's JRACs are models for interagency coordination, combined scenario-based training events, and unprecedented cooperation and information sharing. We are working continuously with U.S. Northern Command to standardize and synchronize our efforts and procedures.

USPACOM has an aggressive vulnerability assessment program that covers DOD bases, ports, airfields, and training areas in the AOR that are not under U.S. control. We use assessment teams from the Defense Threat Reduction Agency (DTRA), the services, and our components to ensure our facilities have current assessments and proactive antiterrorism plans. USPACOM personnel work closely with their De-

partment of State counterparts to ensure host-nation support is adequate to protect our deployed forces and that all are employing the latest AT/FP procedures.

Force protection is "operationalized" in USPACOM. Our staff continually monitors threat information and the environment in which our forces are based. Theater and country specific Force Protection Conditions (FPCONs) are continually reviewed and upgraded as necessary. Random Antiterrorism Measures are employed to complicate terrorist planning. USPACOM also has a travel restriction program, providing a tool to declare entire countries or portions thereof "off-limits" to DOD members, thus keeping them out of harm's way. In addition, Force protection plans are required for all travel in our AOR, from major unit deployments to individuals on leave. The resource drain from increased FPCONs is a formidable challenge to both manpower limitations and Force Protection Technology initiatives. Your continued support is necessary to sustain the progress we are making in this area.

Critical Infrastructure Protection (CIP) program and Homeland Security. Currently, we support Homeland Security and Forward Base security efforts primarily through Information Analysis, Infrastructure/Personnel Protection, and Quick Reaction Forces. The Critical Infrastructure Program is our operational initiative to improve security in the AOR. The program is on track in developing processes and methodologies. The first CIP Appendix to one of our theater Operational Plans (OPLAN) will go to the Joint Staff on 30 April 2003. Additionally, a comprehensive USPACOM CIP Operation Order (OPORD), our Theater Infrastructure Assurance Plan, is in final staffing. Notably, the program has resulted in a partnership with the Joint Program Office for Special Technology Countermeasures to develop and field a prototype Combatant Command CIP Database in May 2003.

Homeland Defense and Civil Support (HLD/CS). With the recent direction to consolidate the security, defense, and support for the homeland, we are working to integrate existing functions as well as expanded mission requirements to enhance our protection of the USPACOM Homeland AOR that includes the State of Hawaii, the Territories of Guam and American Samoa, and the Commonwealth of the Northern Mariana Islands. Programs such as the JRAC, CIP, Homeland Air Security (HAS), Consequence Management for Chemical, Biological, Radiological, Nuclear, and high yield Explosive (CBRNE), and Domestic Support Operations are but a few of those being combined into one plan to maximize our capabilities and still refine the use of our resources. USPACOM's HAS mission deters, prevents or interdicts aerial threats and aggression directed toward Hawaii, Alaska, Guam, and U.S. territories within USPACOM's AOR. The HAS air threat spectrum ranges from ballistic missiles and aircraft to future low-altitude cruise missiles and radio controlled sub-scale aircraft. The potential for a terrorist to gain this capability is rising. USPACOM has addressed this challenge with close integration, cooperation, coordination, and collaboration among international, Federal, State, local agencies, and governments. This fusion of individual agency capabilities, including our military, into an integrated, multi-layered response is key to our collective success.

USPACOM also supports other non-Homeland Security functions. Civil Support operations will be an enhancement of our existing Domestic Support Operations to the Homeland. Although not directly related to securing the homeland against terrorism, this support affects the impact of terrorist action. With Secretary of Defense direction, we quickly support the Department of Homeland in mitigation and recovery efforts relating to natural disasters. Typhoon Pongsona in Guam is a good example. The USPACOM HLD/CS program has taken on a renewed effort with great scope and responsibilities. Our Contingency Plan (CONPLAN) will build on our processes for intelligence sharing, AT/FP, CIP, CBRNE, and natural disasters as well as other requested support to the civilian sector, providing a comprehensive program for Hawaii, Guam, and all our territories in the AOR.

Information fusion. USPACOM's Counterintelligence Program remains the key link between DOD and Law Enforcement Agency efforts in the Pacific Theater. We are committed to furthering the integration efforts of the Joint Inter-Agency Coordination Group—Counter-Terrorism (JIACG–CT) and counterintelligence missions with the FBI's Joint Terrorism Task Forces and with allied international agencies. Along these lines, we are pioneering efforts to promulgate all-source intelligence fusion to connect local, state, national, and DOD intelligence, counterintelligence, and law enforcement agencies. These efforts, coupled with a joint international training regimen encompassing asymmetric warfare and analysis from multiple perspectives, hold great promise in developing an "actionable intelligence" capability.

Manpower Requirements. Legislation mandates reductions in Higher Headquarters (HHQ) staffs by 15 percent. USPACOM and our sub-unified commands are executing these reductions in ways that will minimize the impact on our missions. The need for intelligence gathering, analysis, production, coordination, dissemination, campaign planning, and capabilities testing in exercises and coalition building

is greater than ever. Adequate manpower resources are essential to mission planning to counter emerging asymmetric threats. Achieving synergy of forces launched from around the globe during conflicts while providing effective reach-back for those forces creates high mission demand on our combatant headquarters (HQ) staff.

The GWOT has created additional manpower requirements. Increased security patrols, both shore-based and waterside, in response to enhanced FPCONs; non-U.S. controlled port and airfield assessment teams; 24/7 coverage for JRACs and Crisis Action Teams; and the already expanding Homeland Defense, Civil Support and CT missions are a few examples of manpower generating tasks. Additional AT/FP billets are needed to address the full range of force protection, antiterrorism, and CT missions throughout USPACOM. As we continue to develop the Homeland Defense and Civil Support plan, we already see the need for enhanced information analysis capabilities and consequence management resources for CBRNE events.

Integrating reservists. Throughout the 1990s, we increasingly relied on our Reserve and Guard members to help accomplish our mission. These outstanding service members/citizens contributed not only hard work, but also unique talents and perspectives. It is not an understatement to say that they have helped in every facet of the USPACOM mission. After 11 September, with the sharply increasing demands of the GWOT, we needed their support. Throughout USPACOM, we only mobilized about 5,000 reservists—about 10 percent of the immediate 11 September mobilized force capability. They helped with force protection, logistics flow, and increased shifts in a myriad of areas. As we continue to tap into our reservists and National Guardsmen to support operations, we need to ensure they receive benefits comparable to our active duty service members. America can be proud of how our Reserve and Guard Forces have responded.

Combating Terrorism Readiness Initiatives Fund (CbT RIF). USPACOM received $3.98 million in CbT RIF funding in fiscal year 2002. The fiscal year 2003 worldwide allocation stands at $47 million. This initiative provides the Geographic and Functional Commanders additional avenues for resourcing against emergent and emergency terrorist threats. USPACOM received $4.14 million (10 projects) of the $32.4 million available in the first allocation of fiscal year 2003 funding, not including $2.56 million (14 projects) for U.S. Forces Korea (USFK). USPACOM funded CbT RIF projects include emergency Explosive Ordnance Disposal responder gear for USARPAC; a perimeter wall for the new USPACOM Headquarters; vehicle gates and barriers for Tripler Army Hospital; mass notification system for Misawa Air Base (AB), Japan; closed circuit television for Fort Buckner; gates for Yokota AB, Japan flight line; barrier gates for Fort Shafter; crash barriers for Camp Zama, Japan; and a standoff initiative with HQs security upgrades for Yokota AB.

Special Operation Forces (SOF). USPACOM, through Special Operations Command, Pacific and JTF–510, maintains the ability to deploy SOF under the command of a general officer to any location to combat terrorism. We have used this capability in Operation Enduring Freedom—Philippines and continue to refine it to support the GWOT. This capability, however, depends on building and maintaining relations with supporting allies and friendly nations. We build and maintain these relationships through our Joint Combined Exchange Training (JCET) and other Theater Security Cooperation (TSC) programs. We look forward to working with the Congress to ensure these activities continue to receive future resource consideration.

Improving Readiness and Joint Warfighting Capability

Improving the readiness and joint warfighting capability of USPACOM Forces is critical to assuring our friends and allies, dissuading future military competition, deterring threats and coercion against U.S. interests, and defeating an adversary if deterrence fails. It includes the force levels, spares, operating dollars, and training needed to maintain ready forces. It also means innovating, transforming, and improving our capabilities and developing operating concepts and technologies needed to keep our forces ready for a wide range of alternative futures.

Intelligence, Surveillance, and Reconnaissance (ISR). The GWOT and traditional regional military threats demand ever-increasing agility and innovation in military intelligence. In the Asia-Pacific region, Signal Intelligence (SIGINT) remains our best means to provide timely information on threat developments and intentions. It is key to tracking terrorist activities in Indonesia and the Philippines, as well as maintaining warning indicators and situational awareness on areas such as Korea, tensions between India and Pakistan, and China's continuing military modernization and relations with Taiwan.

The ability to integrate National Security Agency (NSA) and service SIGINT is vital in peacetime and in crisis. Rapid advances in telecommunications technologies, and their use by adversaries, present a daunting SIGINT challenge. I strongly sup-

port NSA's transformation efforts to defeat any perspective gains the digital technology revolution may present to our enemies.

I strongly advocate the accelerated development and fielding of joint, interoperable, modular, rapidly reconfigurable tactical SIGINT equipment for land, sea, and air platforms. These improvements should be balanced by collaborative intelligence processing systems at national, theater, and tactical levels to make the best use of the increased data obtained.

Without concurrent improvements in NSA's capabilities and in service cryptologic systems it will be increasingly difficult to predict, find, and target the most serious threats in our region.

Substantial improvements are needed to enhance Human Intelligence (HUMINT) collection capability against key USPACOM Indications and Warning requirements, to include hard and deeply buried underground facilities supporting the adversary's command, control, and communications and WMD infrastructure. Focused and coordinated source development is critical. Sustained resources for both CIA and DOD (Defense HUMINT Services) will yield the progress we need. Our military commands must have insight into enemy plans and intentions that only good HUMINT can provide.

Cryptolinguists remain a long-standing shortfall with Operation Enduring Freedom proving the value of personnel fluent in languages and dialects. We are partially meeting the current challenges by training cryptolinguists to become familiar with low-density dialects and using speakers fluent in these dialects to augment our force. Ensuring the Defense Manpower Data Center's Automated Language Finder database tracks all USPACOM languages and dialects would significantly improve our ability to find speakers of languages/dialects required for future operations. Additionally, it is essential the Defense Language Institute develop tests for languages/dialects that accurately assess language skills of service personnel.

To support future contingencies, crises or OPLANs, we require a full-up and exercised joint ISR architecture with adequate ISR assets. One positive development sponsored by the U.S. Air Force is the multi-intelligence tasking, processing, exploitation, and dissemination (TPED) environment with the Distributed Common Ground System (DCGS) at Hickam Air Force Base (AFB). This system will distribute data from theater, commercial, and tactical ISR sensors to multiple users—national, joint, and combined—involved in a crisis. To fully benefit from the DCGS, additional funding is needed to ensure USPACOM service components have a sustained airborne ISR infrastructure, to include unmanned aerial vehicles (UAVs) and extended tether U–2 high-altitude surveillance and reconnaissance aircraft.

Command, Control, Communications, and Computers (C^4). Over the past 3 years, improving the C^4 posture in the Pacific has been a top USPACOM priority and still is one of the most critical challenges we face today. The C^4 infrastructure must be continually sustained and protected. We've invested heavily in command and control systems and equipment, communication devices, and computers across the command. We do this because our current and future requirements demand that we do. For example, the Air Force recently declared initial operating capability for a new Air Operations Center at Hickam AFB in Hawaii. This function can deploy in part or as a whole to operate through the full spectrum of contingency operations, reaching back for support from the rest of the Air Operations Center at Hickam. Every planning action, training event, operation, and weapon system in existence today relies heavily on the ability to communicate. Providing our fighting men and women with the weapons they need comes with a large price tag, but it's worth it. To do otherwise would be tantamount to denying them ammunition in the heat of battle.

C–4 Challenges. The GWOT demands effective communication systems and equipment to link national authorities and local first responders with real-time information. We have made great strides in improving C4 capabilities in the Pacific Theater, but we must continue improvements at a rapid pace to keep up with expanding requirements for connectivity, capacity and security. C4 ties all technology together and is the underpinning for Transformation, both directly and indirectly. We must enhance our information infrastructure to be more robust, able to rapidly capitalize on improving technology, and more cost efficient.

To achieve information superiority we need to move large volumes of information to and from the warfighter to maintain vivid and complete situational awareness and achieve understanding at a glance. Many folks envision large volumes of information as pages and pages of text messages, which can overwhelm users and result in "information overload." Instead, we are talking about maximum use of multimedia such as video, shared applications through collaboration software, and high-resolution imagery. Through these types of tools, our operators can digest more information and we can collectively move towards a more knowledge-based environment.

This type of capability requires large network capacity. Our warfighting requirements for remote and austere locations require that this network capacity be robust and resilient. Enhanced satellite capability is one of USPACOM's most critical needs. Today we do not have enough bandwidth in any of the military satellite bands, Ultra, Super, or Extra High Frequency, to fully support our operational plans. Commercial SATCOM capacity can support much of this shortfall, however, commercial SATCOM availability is subject to market pressures and is not fully dependable. For example, an important commercial SATCOM service to the Navy was preempted by media coverage of the 2000 Olympics in Sydney, Australia.

Additionally, USPACOM principally relies on geo-stationary weather satellites to track destructive typhoons over the vast expanse of USPACOM's ocean areas. Our current geo-stationary satellite weather information comes from foreign-owned and operated satellites that are reaching their designed service lives.

Consequently, it is absolutely crucial to fully fund and keep on track satellite upgrades, launches of new communications and weather satellites, and new satellite programs. The Transformational Communication System (TCS) system being proposed by the Assistant Secretary of Defense for C3I looks promising for meeting our SATCOM needs.

Our terrestrial communication infrastructure also needs attention. Most of our bases, posts, camps and stations are supported by mid 20th century cable and wire technology. The Global Information Grid (GIG) Bandwidth Expansion Project promises to replace this legacy infrastructure with the fiber optic connectivity needed for our in-garrison forces, command centers and training facilities.

Radio communications that connect us with Federal, state and local government agencies are also important for force protection, homeland security and disaster response. We appreciate the congressional support for the Pacific Mobile Emergency Radio System (PACMERS), which will help us meet National Telecommunications and Information Administration (NTIA) mandate for frequency consolidation and allow for excellent interoperability with non-military partners.

Information Assurance and Information Sharing. Communication connectivity and capacity are only part of the solution for network centric warfare. Communication and information security must be maintained while simultaneously sharing information and collaborating with bilateral and multilateral coalitions. Our ability to share information with coalition partners is inhibited by our need to restrict information within enclaves that are not accessible to coalition partners. To be network centric, we need the network to be agile and allow for the dynamic interconnection of nodes that support several communities of interest. Typically, we can have several simultaneous operations involving different coalition partners occurring in the Pacific at any given time. Being able to support these concurrently, with sufficient network capacity, is an information technology challenge.

Our Combined Operations Wide Area Network (COWAN) initiative is helping us achieve this goal by developing an information system that is interoperable with U.S. and coalition forces and is agile enough to allow us to selectively collaborate in multiple joint/multi-national environments simultaneously. We have formed a strong partnership with CENTCOM to roll our COWAN solution into the Combined Enterprise Information Exchange System, CENTRIXS, which may become the single network environment for all joint forces to support coalition operations and intelligence networking requirements. This single, highly meshed environment would be much more responsive and financially efficient than the multiple networks required today to support each individual coalition community.

Communication and information security measures are both part of our comprehensive Information Assurance strategy. As the Internet expands and becomes more pervasive, our adversaries are continuously finding ways of using computer vulnerabilities and network weaknesses to deny access to our information resources or exploit our information content. There are many programs focused on information assurance involving encryption, intrusion detection and network emergency response. Coordination of these programs and computer network defense activities requires a highly trained team of network professionals working around the clock with and a strong relationship with the Joint Task Force for Computer Network Operations (JTF CNO). I cannot cite any single program that is more important than any other in the Information Assurance area; however, emphasis in this area is a must if we expect to rely on network centric operations.

With regard to information sharing, we have made great strides in gathering and taking advantage of "open source" information and providing it to our coalition and inter-agency partners to build trust and improve understanding. The vast amount of this information necessitates focused collection and analytical efforts to identify accurate and relevant information to enhance security cooperation. Open source products provided by the Virtual Information Center (VIC) and the regional infor-

mation exchanges conducted via the Asia-Pacific Area Network (APAN) have increased our situational awareness of events and developments in the Asia-Pacific region that affect all of our operations. More importantly, these web-based activities have enabled us to expand our information base and share the results instantly with our foreign counterparts and potential coalition partners.

Anti-Submarine Warfare (ASW). The Pacific undersea warfare challenge is growing at a significant rate. In recent years, the USPACOM AOR has seen the greatest increase in submarine order of battle in the world. A robust and integrated ASW architecture and more capable force structure are essential to counter the growing submarine threat. The premier ASW asset remains submarines. To ensure sufficient submarines are available to track and kill enemy forces, we must continue to support the refueling of 688-class submarines and follow through in reaching a *Virginia*-class submarine build rate at two per year in fiscal year 2007. I also strongly support the rapid transition to acquiring Automatic Periscope Detection technology for surface ships and Navy Maritime Patrol Aircraft employed in littoral regions. Congressional efforts last year resulted in funding for a welcomed and much needed 688-class submarine refueling overhaul program and funding that enabled the transition from a science and technology program to an acquisition program for airborne Automatic Periscope Detection technology. I appreciate your support as we make necessary improvements in our ASW war fighting capabilities.

Missile Defense (MD). Short- and medium-range ballistic missiles pose the most pervasive and challenging missile threat for USPACOM MD. Effectively defending against this threat requires a layered, complementary mix of sea and ground based lower tier and upper tier terminal phase defense systems. Until a robust upper tier system is fielded, lower tier systems remain paramount to successful execution of theater OPLANs. A mix of forward deployed ground systems and sea-based lower tier systems offers the lowest risk and earliest deployment options. Accordingly, I support delivery of a sea-based terminal system as soon as technologically feasible and a moderate increase in Patriot PAC–3/GEM+ missile production/conversion to meet current OPLAN and contingency plan (CONPLAN) warfighting requirements. From a homeland defense perspective, continued development and fielding of a Ballistic Missile Defense System (BMDS) capable of intercepting missiles in all phases of flight (i.e. boost, midcourse, and terminal) against all known threats remains a top priority. Key capabilities that support these requirements, now and in the future (Missile Defense Agency's Block 2004–2006 BMDS capabilities), for USPACOM include PATRIOT PAC–3, Sea Based Midcourse Defense Segment, Theater High Altitude Air Defense, and Airborne Laser ½ power. Congressional support of the BMDS programs remains vigilant, and I applaud your continued support of Ballistic Missile Defense initiatives.

Mobility and Operations. During 2002, we made great strides partnering with U.S. Transportation Command (USTRANSCOM) to modernize our strategic air and sealift infrastructure to meet potential operational needs ranging from disaster relief to the GWOT and all the way to a major war. The USPACOM En Route Infrastructure Steering Committee has identified, validated, and championed over $500 million in hydrant, ramp, and runway projects throughout the AOR to support the National Military Strategy as mandated by the Defense Planning Guidance and by the Mobility Requirements Study 2005. Our current en route airlift system includes Elmendorf AFB Alaska, Hickam AFB Hawaii, Andersen AFB Guam, and Iwakuni Marine Corps Air Station, Kadena AB, Misawa AB, and Yokota AB Japan. Additionally, we have developed an AOR-wide prioritized list of air and seaports to visit and assess their capability as potential en route locations.

The heavy use of Naval Supply Facility in Diego Garcia, a British Island in the Indian Ocean, in support of OEF, has led to its near-term consideration as an en route port supporting both USPACOM and USCENTCOM operations. We have identified over $38.7 million in infrastructure improvement projects to expand the facility's current operational throughput capability. Projects nearing completion include improvements in temporary containerized munitions handling pads and storage areas, wharf lightning protection, and transient berthing projects. Similarly at Wake Island, we have identified significant infrastructure improvement projects to ensure continued access to this critical location supporting our Pacific Tanker Air Bridge. The fiscal year 2002 MILCON $9.7 million Repair Island Access Facilities is currently restoring the wharf and marine bulkhead in preparation for major airfield pavement replacement starting with the fiscal year 2003 MILCON $24.9 million, which replaces the entire deteriorated runway pavement. Following that, four more phases in fiscal year 2004 and beyond will complete replacement of the airfield taxiways and aprons and upgrade of the water supply, electrical power and sanitary sewage systems, for an additional $74 million. These investments and others like

them throughout the Pacific will ensure we have the necessary infrastructure readiness when we need them.

As early deployers, air-refueling tankers are critical to executing theater war plans for establishing the Pacific Tanker Air Bridge. Ongoing OEF and Noble Eagle have demonstrated the operational impact that air-refueling capability has in support of the GWOT. The KC–135 aircraft comprises 90 percent of the tanker fleet and their usage increased 45 percent over what was programmed following 11 September 2001.

The High Speed Vessel (HSV) provides a flexible alternative for intra-theater movement in USPACOM, including its use to augment airlift. Since October 2001, III Marine Expeditionary Force (MEF) has been testing and evaluating deployments using a leased HSV with great success and cost savings for exercise deployments and redeployments, as well as operational employment. Joint Venture HSV X1, the Joint Army/Navy HSV that participated in Millennium Challenge 2002 and other exercises, was scheduled to support U.S. Army training in the USPACOM Theater from March to April 2003, but was diverted to support U.S. Central Command (CENTCOM). USPACOM fully supports the pursuit of high speed sealift technology as an Advanced Concept Technology Demonstration (ACTD) and a future force projection transportation platform.

USPACOM supports USAF and USTRANSCOM efforts to procure C–17 aircraft to meet strategic airlift needs in our AOR. Our number one strategic lift shortfall is airlift due largely to the retirement of aging C–141 and C–130 airframes and substandard C–5 aircraft performance. Additionally, to better meet operational response in the AOR, we fully support the initiative to forward base eight C–17s each at Hickam AFB, and Elmendorf AFB starting in fiscal year 2006 and fiscal year 2007 respectively. To have facilities available on arrival of these aircraft, Hickam's C–17 beddown military construction (MILCON) will start in fiscal year 2004 with six projects totaling $64 million. Elmendorf's C–17 beddown MILCON will start in fiscal year 2005 and the MILCON funding stream for these facilities will total about $105 million each over the fiscal year 2004 to fiscal year 2009 MILCON FYDP to provide the needed facilities for these assets to have full mission capability. These strategic mobility aircraft will bring a much-needed aerial delivery capacity to the Pacific Theater and prevent any lapse in capability during the reduction of C–130s in the AOR. We also support USAF efforts to procure F/A–22 Raptors. The F/A–22 will provide a unique, rapid response to swiftly defeat enemy threats in the USPACOM AOR.

A V–22 Osprey tiltrotor capability is truly transformational—exhibiting leap-ahead technology. If the current test program proves successful, this capability will extend our operational reach and access in the AOR. The Osprey's projected design, performance, and reduced vulnerability and susceptibility will provide USPACOM with a highly survivable and flexible capability. The aircraft's enhanced lift abilities provide significant migration for the medium-lift requirement.

The Pacific region needs three of the six planned Stryker Brigade Combat Teams (SBCTs) to fully support theater warfighting capabilities and region transformation efforts. The primary military force of our friends and allies in the Asia-Pacific region is their Army. SBCT participation in regional events reinforces our commitment to support allied transformation efforts and coalition building by continuing Army-to-Army high technology training and exercise events. Additionally, the SBCTs show great promise in providing joint commanders the means to better integrate Army force capabilities as part of a joint or coalition task force.

Training Areas. We are tasked to perform an increasing number of missions, from peace operations to strikes and raids to noncombatant evacuation to humanitarian assistance. Each mission requires preparation. The only way to prepare and ensure readiness is through tough, oriented, and realistic training. Dropping dummy bombs and firing inert ordnance cannot replace "live-fire" practice. The first exposure to "live fire" our forces face must be in a controlled training environment where they learn from their experience at less risk than in hostile combat.

However, we routinely receive encroachment pressure on our training ranges throughout the AOR. Restrictions on space, hours, ordnance, and radio frequencies impact our ability to exercise our equipment and train to standard. Last spring, a suit pertaining to the Migratory Bird Treaty Act (MBTA) temporarily closed our primary aircraft live-fire range, Farrallon de Medinilla, near Guam, until the D.C. Circuit Court of Appeals granted an emergency stay. Fortunately, timely congressional action amended the MBTA to exempt DOD military readiness activities, and a subsequent appellate court order dismissed the case as moot. Likewise, Makua Range on Oahu is in use but severe limits in the number and type of ground force training cycles have forced us to accomplish most small unit training in Hawaii through expensive deployments to the Pohakuloa range on the Big Island. Range and training

limitations in Japan and Korea cause units to deploy away from their home station for routine training. Moreover, although aircraft, artillery, and pistols are noisy instruments of war, they are basic parts of our business. Developments now demand noise restrictions that force important low-altitude maneuvers to unrealistically high altitudes and limit the use of ranges.

We are good stewards of our environment. Success stories are numerous, but often the stories aren't well known. We have set aside space for protected species, altered or deferred some units' training to avoid interference in nesting areas, and developed specific programs to increase the populations of protected or endangered species.

The military's answer to encroachment challenges has been to work around the problems while seeking to minimize the impact on the quality and quantity of training. But, maneuver space is less, training lanes have become narrow and artificially tunneled, and our individual maneuvers have become too predictable or repetitive. The work-arounds may still accomplish the training, but usually require additional costs—in terms of money, time, and impact to the well-being of our service members. Readiness and training experiences decline; we cannot let this continue.

Many of our environmental laws, while well intentioned, are vague. For example, the Marine Mammal Protection Act (MMPA) prohibits harassment of protected species without prior authorization from the respective regulatory agency. The current definition of "harassment" of marine mammals can be mere "annoyance" or "potential to disturb" without biologically significant effects. Any Navy test or training activity that harasses a protected species must be approved by the applicable regulatory agencies—often after delays, or subject to restrictions, that degrade the quality of the training. Sometimes inflexibilities in the statue preclude our regulators from approving even activities that many believe have insignificant impacts. Additionally, litigants using the Endangered Species Act are seeking to force the Fish and Wildlife Service to lock up thousands of acres of military ranges as "critical habitat", even though our own congressionally-mandated Installation Natural Resource Management Plans afford habitat protection. In fact, litigants are seeking to force the U.S. Fish and Wildlife Service to designate such critical habitat on significant areas of DOD training ranges for endangered species that are not even present on such lands. As these examples show, such loose language and broad definitions can and do impede essential air, land, and sea activities near marine mammals or endangered species locations. Clear definitions and consideration of national security requirements should be important points in all environmental legislation.

In April 2002, the administration sent a legislative package to Congress recommending clarifications to certain environmental statutes as part of the Readiness and Range Preservation Initiative (RRPI). The proposed package was prepared to help DOD maintain its ability to train forces and continue to protect the environment in which we train. Last year, Congress enacted three elements of our proposal but did not act on the remaining five. This year, the President has resubmitted the remaining RRPI proposals, with some modifications based on both discussion with Congress and other environmental stakeholders and a significant decision last year concerning the MMPA in the SurTASS lawsuit. We thank Congress for support of the RRPI and ask for your support on future encroachment issues that impact our readiness.

Logistics. An aging aircraft inventory and some parts shortages continue to drive reduced Mission Capable and reduced fill rates for our "go to war" Readiness Spares Packages and high cannibalization rates. The result is lower than expected readiness at increased costs. Although funding for spare parts has improved over the last 2 years, some shortages continue. For example, only three of eight Pacific Air Force (PACAF) A–10, F–15, and F–16 wings maintained minimum Mission Capable standards during fourth quarter fiscal year 2002. PACAF requires excess cannibalization to meet wartime mission planning sortie generation rates. PACAF cannibalization rates are higher than 8 percent for the F–16, F–15C/D, F–15E, and A–10. Likewise, the U.S, Army uses controlled substitution to achieve peacetime mission-capable Aviation Fleet goals. Delays in stock availability due to 12–18 month spares delivery lead-times are a root cause of controlled substitution and create difficulty in matching funding lines with projected capabilities. Increased spares at the Army wholesale level are required to meet the increased flying hours necessary to surge to wartime Operational Tempo.

We have made progress but need your continued support in fully funding materiel and personnel requirements for organizational, intermediate, and depot maintenance levels. Additionally, we need support for each Service's Life Cycle Support program to extend the life of our aging aircraft fleets.

Chemical, Biological, Radiological, Nuclear, and high yield Explosive (CBRNE) defense is a significant concern in the Pacific theater, and a potential showstopper for

U.S. military operations, causing significant operational risk to Major War OPLAN execution. CBRNE is a critical operating condition and potentially the greatest theater threat I face, affecting everyone, everywhere, including our allies and the homeland. Aircraft exposure on the Korean Peninsula or an attack on a few strategic choke points, including Guam and key Japanese air and seaports, could stop U.S. force flows and other critical support operations. Significant differences exist between what we would like to achieve against CBRNE threats and our actual capabilities. Specific shortages include Individual Protective Equipment, Chemical/Biological Point and Standoff detection, inadequate decontamination standards, and significant shortcomings in detailed and actionable intelligence on adversary WMD processes and facilities.

We are active in the Joint Service Installation Protection Program and with other ongoing studies and demonstrations. For example, we are sponsoring a Restoration Operations (RESTOPS) Advanced Concept Technology Demonstration (ACTD) to examine the actions necessary to protect against and immediately react to the consequences of a chemical or biological attack at a fixed site. Through this venue, we are investigating new tactics, techniques and procedures, as well as exploring new detection, decontamination, early warning networks, and medical technologies. The RESTOPS ACTD will have its final demonstration at Osan Air Base, Korea, in February 2003. Another effort we are sponsoring is a DOD-wide biological warfare (BW) seminar. The DOD WMD community collectively assessed the shortfalls within DOD for responding to enemy BW and gave us a way-ahead to resolve these issues. We are working to integrate procedures and technologies that allow us to mitigate the impact of such an attack. We cannot do this alone. USPACOM needs support from the entire joint community to improve our abilities to protect our forces and to operate in this difficult environment should the need arise. Your continued support is critical to CBRNE defense readiness.

Quality of Service for our Men and Women

While winning the war on terrorism and transforming our forces to ensure a qualitative military edge, we must improve on the Quality of Service (QOS) for our soldiers, sailors, airmen, and marines. QOS means providing the high quality operating facilities, the tools, and the information technology necessary for our service men and women to achieve their goals and execute their missions with efficiency and a minimum of frustration. My travels throughout the Asia-Pacific region—first as Commander, Pacific Fleet, and now as Commander, Pacific Command—confirm my belief you have done a great service to our military members and their families in the area of personnel entitlements.

The QOS initiatives included in the Fiscal Year 2003 National Defense Authorization Act show service members that military and congressional leaders are taking actions to meet the needs of our service men and women and their families. Thank you for your support on recent initiatives, including the 4.1 percent pay raise, assignment incentive pay, and the ability to grant emergency leave of absence. These QOS initiatives will assist in retaining highly skilled troops and their families. Many USPACOM personnel will benefit from the ability to defer their Consecutive Overseas Tours travel entitlement, from recent increases in Basic Housing Allowance, and from the additional Basic Allowance for Subsistence provisions in areas with inadequate messing facilities. Deployed personnel will be more at ease knowing that additional family assistance has been provided in the form of childcare, education, and youth services for our men and women who are in harm's way, supporting contingency operations and the GWOT.

Military Family Housing remains a top priority. All services have devised plans to eliminate inadequate housing by 2007 with a combination of traditional military construction (MILCON) and privatization (Public Private Venture or Residential Communities Initiative). Congressional support has provided immediate benefits to our men and women who serve. Continued funding is essential, however, to enable further progress in reducing the number of inadequate quarters and in limiting out of pocket expenses to our service members and their families while maintaining a high standard of construction and quality. While we have made progress, we still have considerable work remaining. We appreciate your continued attention on this important issue.

Dorms and Barracks for our single service members is another area where we have seen significant improvement. Our service components are now pursuing well thought out plans to meet the fiscal year 2008 goal of eliminating open bay berthing and central latrine-style barracks. We must retain our current operational funding stream, however, to maintain existing facilities as renovation proceeds. Again, congressional support has had a direct and beneficial impact on our young service members.

Our base infrastructure is still below standards. Sustainment, Restoration, and Modernization (SRM) of facilities and infrastructure throughout the USPACOM AOR continues to be an important concern. Fiscal Year 2001 Installations Readiness Report rated about 80 percent of USPACOM facilities at C–3 (having serious deficiencies) or C–4 (not supporting mission requirements). In many areas, USPACOM facilities are 1940s vintage and not mission conducive. For example, modern weapons no longer fit into WWII vintage magazines and require improved piers for safe, proper handling. The DOD goal directs components to achieve a 67-year recapitalization rate by fiscal year 2007 and restore readiness of existing facilities to C–2 (minimum acceptable performance) status on average, by the end of fiscal year 2010. Current funding puts achieving this directive at risk. In addition to maintaining our facilities, we have equally important infrastructure requirements above SRM needs that require attention. These include new mission bed-downs and essential environmental requirements. Our facilities and infrastructure provide a foundation for optimum readiness and quality of service critical to mission success. We appreciate Congress' past funding efforts and call upon your continued assistance to ensure adequate facilities and proper maintenance for the long term.

By far the most important weapons systems in our inventory are our soldiers, sailors, airmen, and marines. These individuals require life-cycle support and maintenance just like other systems. Force Health Protection is that maintenance program. Ensuring the health of our forces directly relates to our ability to implement effective disease countermeasures that include vaccines, antibiotic stockpiles, and automated disease surveillance systems. I ask you to continue your support for ongoing research and development efforts that will improve our disease detection capabilities.

The upkeep and replacement of military medical facilities remains one of our top QOS priorities. We are working to replace or renovate our substandard facilities, particularly for Naval Hospital, Guam, further degraded by Typhoon Pongsona in December. We must continue to ensure our military medical infrastructure is safe, modern, and secure.

We appreciate the MILCON appropriations to the USPACOM AOR. These funds are vital to maintain our ability to work and fight together with our allies and to help transform and modernize our forces. In fiscal year 2003, $1.1 billion was allotted toward mission and mission support requirements and $300 million toward family housing needs. In fiscal year 2004, we need continued MILCON support for vital readiness and QOS issues. For example, we require MILCON for new mission bed-downs, such as the Stryker Brigade Combat Teams and the C–17 aircraft. Our backlog of major infrastructure repairs is reflected in the need for complete or major repair of airfield pavements at all U.S. Pacific Air Force bases, as well as the major repairs needed on critical infrastructure at bases and long-range radar detection in defense of the homeland. In the wake of destruction from Typhoon Pongsona in November 2002, it is clear we require supplemental MILCON support for a "typhoon-proof" concrete aircraft hangar as well as several other projects at Andersen Air Force Base, Guam. The hangar will provide reliable support for critically important current and future Air Expeditionary Force and OPLAN requirements. Also, we require MILCON for consistent environmental stewardship and essential dorm and family housing deficits and renovations. I thank Congress for using MILCON where enhanced force protection is necessary.

The New USPACOM Headquarters is under construction and designed to provide advanced information management, decision support and visualization technologies for our people to efficiently accomplish their mission.

Department of Defense Education Activity (DODEA) MILCON for two schools on Guam is my top family QOS priority. One is an elementary school that is currently not in the DODEA MILCON program due to lack of funds. The second is a replacement high school programmed in the DODEA's fiscal year 2006 MILCON program. Current facilities are 1997 building conversions in poor, substandard condition that received significant damage from two typhoons in 2002. Further, numerous seismic events over the past few years have significantly weakened the elementary/middle school. Our military family dependents need safe, soundly built schools conducive to a good learning environment. We need your near-term support for these two DODEA school MILCON projects in Guam especially in light of our increased force posture on the island.

Pacific Warfighting Center (PWC). Increasing operational and exercise activity, training complexities, and C^4I modernization have rendered obsolete USPACOM's exercise simulation infrastructure and support capabilities. This deficiency significantly reduces the ability to train USPACOM and Joint Task Force commanders in crisis action readiness procedures; limits their ability to rehearse key operational orders; degrades the ability to improve combined interoperability with friends in the

region; and contributes to increased OPTEMPO, training time, and associated costs for USPACOM forces before responding to contingencies. The current facility does not support future technologies or meet force protection requirements. The planned, state-of-the-art operations and simulation center will improve total force readiness and achieve OSD's goal for transforming training by exploiting emerging technologies to create a robust, networked, live, virtual, and constructive training and mission rehearsal environment for joint and combined force commanders and their staffs.

PWC will be a key node on the Joint National Training Center's global grid of operational warfighting centers. Specifically, it will fully integrate with, and extend the capability of, the Joint Forces Command's Joint Training Analysis and Simulation Center and U.S. European Command's Warrior Preparation Center. Accordingly, the PWC will provide an effective venue for decision support, OPLAN mission rehearsal, and combat analysis for headquarters and deploying forces. The planned simulation center will transform USPACOM through the use of emerging information technologies to support advanced warfighting concepts and joint experimentation. The PWC promises to save exercise funds and enhance regional security cooperation using Internet-based information exchange opportunities via the Asia-Pacific Area Network. This MILCON project will provide a secure facility in Hawaii for assembling military, civil-military and interagency representatives from throughout the Asia-Pacific region for interoperability exercises, collaborative research, and seminars. The facility will also support component conference requirements in a secure and protected setting.

Again, much has been accomplished in QOS improvements, but we still have more to do. Thank you again for the support you have provided and I thank you in advance for your continued future support.

Reinforcing the "Constants" in the Pacific Region

Our long-standing bilateral alliances in the Asia-Pacific region, our friendships and the presence of our forward-deployed combat forces continue to be the foundation of the region's peace and stability. One of my goals is to build on these relationships while nurturing multinational efforts that support the region's mutual interests. Our forward posture is fundamental and our combat capability essential to deter regional threats. We look for initiatives that help shape our overseas posture.

Theater Security Cooperation (TSC). Dramatic events of the past 2 years have brought into focus new and challenging national security demands for the 21st century. A mix of traditional and non-traditional threats jeopardizes the unprecedented levels of Asia-Pacific security and prosperity of the last 50 years. These threats are reminders that evolving challenges require more prompt and effective responses to ensure peace and prosperity in the Asia-Pacific region. At USPACOM, we "operationalize," national and defense security strategy with regional emphasis. Attaining national security and defense objectives in the Asia-Pacific region requires a broad understanding of threat capabilities, a frank assessment of political-military realities, and a well-charted course supported by meaningful and mutually beneficial security cooperation.

Our acute theater security concerns include conflict on the Korean Peninsula (where the stakes are high); miscalculation between regional strategic rivals (such as China-Taiwan or India-Pakistan); and transnational threats such as terrorism, proliferation, drug-associated violence, and instability from failed nation-states. Although we anticipate peaceful resolution of longstanding security concerns in places like the Korean Peninsula, Taiwan Strait, and Kashmir, the strategic situation in these potential flashpoints and elsewhere mandates vigilance and preparedness. We are strengthening our current security relationships and military capabilities while developing new relationships and capabilities to deter conflict and dissuade would-be regional competitors.

The USPACOM Theater Security Cooperation (TSC) Plan supports the overall mission by enhancing U.S. influence, expanding U.S. operational access to train (and deploy) forward-deployed and forward-based combat forces, and increasing interoperability with our coalition partners to support potential efforts across the spectrum of military operations. Every TSC activity we undertake enhances our joint/combined capabilities and communicates our intent to assure friends, or dissuade, deter, or defeat potential enemies. Security Cooperation is an engine of change that, along with our Joint Training and Experimentation Plans and our operational focus, solidifies the link between national strategy and focused, enduring regional security.

The dividends of a relevant, adaptive TSC plan are clear—our treaty allies and friends have provided incomparable support to OEF and the GWOT. Every day, our TSC planners, exercise planners, security assistance personnel, and forward-de-

ployed forces coordinate, plan, and execute meaningful security cooperation activities that strengthen military-to-military cooperation and prepare U.S. forces and their prospective Coalition partners for the next challenge.

Japan. The U.S.-Japan alliance has never been stronger. From the outstanding rapport at the highest levels of our governments to the action officers, our two countries are moving forward in strengthening ties and resolving problems. Nearly 38,000 U.S. armed forces personnel are stationed in Japan, which also serves as a forward-deployed site for about 14,000 U.S. naval personnel. Japan provides over $4.5 billion in host-nation support, the most generous of any U.S. ally. Without these forward-stationed and forward-deployed forces, it would be much more difficult for the U.S. to meet commitments and defend American interests throughout the Asia-Pacific region. The U.S.-Japan alliance is fundamental to security and peaceful development in the region.

Since becoming Prime Minister (PM) nearly 2 years ago, PM Koizumi has stressed the importance of the alliance and has sought to move Japan's security policies forward. He exerted exceptional leadership in response to the 11 September terrorist attacks, pushing support for the GWOT. After 11 September, the Government of Japan (GOJ) rapidly passed legislation and obtained Cabinet approval of a Basic Plan that provides the framework for significant Japan Self-Defense Force contributions to the war on terrorism. The speed with which Japan reacted is unprecedented in the 50-year history of the Japan-U.S. security relationship. GOJ contributions to the GWOT include the provision of over 70 million gallons of fuel oil to coalition ships by the Japan Maritime Self-Defense Force. The Japan Air Self-Defense Force has provided over 1,700 flight hours moving tons of important cargo and passengers throughout the theater. We take every opportunity to express our appreciation to the GOJ for its support following 11 September.

The significant progress in building national support against terrorism does not eliminate concerns, however, about U.S. military activities in Japan. Although Japanese public support for the alliance remains high, about 70 percent, a majority of Japanese citizens would like to see a reduction in the burden of our presence. The normal range of base-related issues, including constraints on training and concerns about crime and the environment require continued careful management.

Efforts continue to implement the Special Action Committee on Okinawa (SACO) Final Report. While 15 of 27 SACO initiatives have been completed, 12 (2 of 5 noise reduction and 10 of 11 land release initiatives) are still in progress. The cornerstone of the Japan-U.S. SACO Final Report is the Futenma Replacement Facility (FRF). GOJ approval of a Basic Plan for the off-shore portion of the FRF highlights the progress in the SACO process. However, we continue to emphasize to the GOJ that our requirements have not changed, and a complete replacement facility is required before returning Futenma.

The U.S.-Japan alliance requires our proper attention. At the same time, significant growth opportunities exist for advancing U.S. interests. U.S. forces' presence here, from the country team perspective, is secure, and careful management of the issues will ensure it remains so. My hope for the coming year is that our security dialogue with Japan will advance beyond the discussion of current issues related to bases and training to address our longer-term interests in sustaining our vital alliance. We also look to expand and improve U.S.-Japan coordination with other countries within the region to address regional security issues.

Republic of Korea (ROK). The ROK remains one of our strongest allies. The new Korean Government is committed to the alliance. Unfortunate incidents marred the relationship this past year—the most tragic was the death of two young Korean girls in an accident involving a U.S. Forces Korea vehicle. In this regard, the U.S. has at every level offered our profound sympathy and apologies.

The late fall protests indicate the depth of emotion the Korean people feel on issues related to perceived inequalities in the ROK-U.S. relationship. However, they are not indicative of the solution sought by most Koreans or the Korean Government. The Korean people in general recognize the great contributions made by the United States to their nation's security and believe the relationship is in their interest, as it is in ours. In coordination with the Office of the Secretary of Defense and United States Forces Korea, we continue to review our force presence in the ROK and North East Asia.

As a partner, the ROK has been steadily increasing its regional security role. USPACOM is working with the ROK Joint Staff to ensure our regional security cooperation efforts are in consonance with one another and integrated where appropriate. In particular, the ROK supports USPACOM exercises and seminars aimed at increasing regional cooperation and interoperability among U.S. friends and allies. Korea's contributions to regional peace and stability were clearly demonstrated this past year in Timor-Leste, where ROK Army troops participated in UN peace-

keeping efforts to support the region's newest nation. This growing regional role for Korea contributes to the security of the region while not detracting from its peninsular defense responsibilities.

The ROK continues steadfast support to anti-terrorism efforts. The Korean Armed Forces are with us in the GWOT, from Guam to Central Asia and on the ground in Afghanistan, supporting our efforts with transportation and medical support. In the USPACOM area, the ROK Air Force has flown over 2,000 hours moving tons of important cargo and passengers throughout the AOR. Similarly, the ROK Navy has provided important sealift to bolster our efforts in South Asia, moving 3,500 tons of material. In the aftermath of Typhoon Cha'taan, the ROK landing ship tanks (LSTs) provided emergency sealift of over 350 tons of bottled water and other disaster relief supplies and materials to Guam. The ROK Army deployed a Mobile Surgical Hospital initially to Manas, Kyrgyzstan, and subsequently to Bagram, Afghanistan. A civil engineering battalion will soon join these forces to assist in rebuilding the infrastructure of that emerging nation. These contributions have been, and will continue to be, important to the success of OEF, and we thank the Korean people for their support.

The events of 2002 remind us of the dangers posed by the Kim Jong Il regime and the threat our ROK-U.S. combined team faces on the peninsula. The conventional threat from the Democratic People's Republic of Korea (DPRK) remains unabated, illustrated by the unprovoked naval attack in July on an ROK Navy vessel that resulted in the loss of four young ROK sailors. The DPRK maintains more than 60 percent of its forces within 100 kilometers of the Demilitarized Zone (DMZ), and the Kim regime persists in its "military first" policy, providing sufficient resources to keep its large force fed, equipped, and exercised, while its citizens face deprivation and starvation. While the DPRK has so far not broken its promise to suspend ballistic missile test flights, it continues development efforts including static engine tests. Additionally, the DPRK exports missiles and missile technology, posing a grave counter-proliferation concern. Finally, the Kim regime continues to engage in nuclear brinkmanship, with the disclosure of its Highly Enriched Uranium program and progressive steps to restart its plutonium production and reprocessing program. These actions are in violation of the Agreed Framework, DPRK pledges to the IAEA, and the 1992 North-South Basic Agreement calling for denuclearization of the Peninsula. The DPRK is not above precipitating a crisis to strengthen its bargaining position. Now more than ever it is critical our ROK-U.S. partnership stand firm.

The ROK is a strong ally that is increasingly contributing to regional peace and stability. Together we face a common threat on the Peninsula. However, the Korean people are looking for ways to foster reconciliation with the DPRK. We recognize the importance of these efforts to the Korean people and their government. Moreover, we agree on the crucial role of the Armistice Agreement in maintaining peace on the Korean Peninsula, and we are committed to ensuring that efforts at reconciliation do not increase risk for the security of the ROK or the United States.

In sum, through continuing support to the coalition to combat global terrorism and efforts to participate fully in regional security, the ROK plays a very positive role in the region. U.S. and ROK forces remain prepared, and we are looking for ways to strengthen the alliance to deal with current and future challenges.

Australia. Our strong ally and partner, Australia has demonstrated steadfast commitment and bold leadership in the GWOT and in essentially every other security endeavor in the region. Its military contributions to the coalition against terror are substantial and include Combat Air Patrols (CAP), tankers, Special Air Service (SAS) troops, guided missile frigates and, most recently, support for Sea Swap, our USN initiative to exchange crews of select vessels forward in theater. Additionally, Australia has become a regional leader in pursuing multilateral counter-terrorism initiatives in Southeast Asia by signing counter-terrorism MOUs with Indonesia, Malaysia, and Thailand while pursuing others. USPACOM remains focused on maintaining strong levels of interoperability with the Australian Defence Forces across the full spectrum of contingency operations including counter-terrorism. Australia continues to lead international support for the struggling nations of the Oceania region, providing humanitarian assistance and training. Australia is the southern anchor of our security architecture in the region, and we will maintain the vibrancy of this strategic relationship.

Republic of the Philippines. Our relationship with the Government and Armed Forces of the Philippines (AFP) developed and matured throughout 2002. Through comprehensive security assistance packages and focused security cooperation, the AFP has improved its ability to fight terrorism on its homeland as demonstrated by the AFP Southern Command's effective neutralizing of the Abu Sayyaf Group (ASG) on Basilan Island and the continuing fight in Jolo. This has not come without

cost. Both American citizens and service members have been wounded, or lost their lives to the terrorists in the Southern Philippines.

Despite these losses, Operation Enduring Freedom-Philippines (OEF–P) has produced tremendous successes. The Joint Task Force advised and assisted AFP forces in their mission to rid ASG terrorists from Basilan Island. As a result, the ASG threat declined significantly on Basilan Island. Although the road that circled Basilan was repaired to support AFP/U.S. tactical mobility, it will also help the people of Basilan in their economic livelihood as will the new water wells, repairs to school buildings, critical hospitals, and other medical treatment areas throughout the island. These humanitarian and civic assistance program successes acted as force multipliers for U.S. and AFP operations because the programs separated the citizens of Basilan from supporting the terrorist threat. To ensure the AFP can successfully respond to the terrorist threat, the U.S developed a Security Assistance (SA) Program that will provide the AFP with additional counter-terrorism training and equipment. This program is just starting and will consist of light infantry battalion, light reaction company, night-vision, intelligence fusion, Non-commissioned Officer, and Civil Military Operations training. The SA modules will occur at various locations in the Philippines to benefit the AFP beyond its Southern Command units. Additionally, USPACOM is implementing a Foreign Military Financing (FMF) Maintenance Assistance Plan that will sustain AFP critical tactical mobility platforms, including UH–1H helicopters, C–130 transport aircraft, two-half ton trucks, and 78-foot patrol craft. We seek your assistance in ensuring funding for this program through the next 3 years. This will give the AFP an opportunity to address current equipment maintenance shortfalls.

Action has not been limited to the southern Philippines. We have completed various large-scale exercises in Luzon and continue to plan for security cooperation events in 2003. On 21 November 2002, the AFP signed a Mutual Logistics Support Agreement with USPACOM—a positive sign of reciprocity and an improving relationship. We have already used the agreement by leasing body armor to the AFP. This small gesture will improve the AFP force protection posture and support Philippine efforts to combat terrorism.

The Philippines plays a strategic role in the USPACOM AOR. As training areas for U.S. forces dwindle, excellent training facilities in the Philippines remain available, though repairs are required. Last year, the U.S. provided $25 million in fiscal year 2002 supplemental funding for the SA modules currently underway in the Philippines.

We have accomplished a lot in the GWOT and in securing our strategic objectives with the unwavering support of the Philippine Government. The security situation in the Philippines needs continued improvement to attract investments and promote economic stability. Continued U.S. support through comprehensive, focused and timely SA funding is one way we can influence the situation in the Philippines. Supporting the GRP in their fight against the ASG is another way. A sustained GRP counterterrorism capability is the goal.

Thailand. The Kingdom of Thailand is a treaty ally that continues to have an outstanding military-to-military relationship with the U.S. Exercise Cobra Gold (CG) is a centerpiece of this relationship. CG–2003 will be our 22nd joint/combined bilateral exercise with Thailand, and the 4th of the expanded observer program—making it USPACOM's premier multilateral event. By adding this multinational exercise dimension in an environment that trains for transnational issues, Thailand is assuming an active role in promoting South East Asia security.

Military-to-military policy with Thailand is managed through annual Thai-American Consultations. Benefits to Thailand include U.S. counterdrug/border security support, demining training, peace operations training and support, and an extensive security assistance program with a robust International Military Education and Training (IMET) component. Thailand's contributions as a regional leader include a peacekeeping troop presence in Timor-Leste, a commitment to providing engineering support in Afghanistan to support the GWOT, and an intent to contribute to the peace process in Aceh, Indonesia.

As a result of our strong relationship with Thailand, we have received access to facilities, ports, and airfields, and the granting of overflight clearances in support of operational emergencies. Our ongoing security cooperation program, including exercises such as Cobra Gold, helps to address the security interests of both our countries and serves as a catalyst for enhancing our regional security posture.

Singapore. Our relationship with Singapore is one of the strongest in the region. Following the 11 September terrorist attacks, Singapore provided access to airfields and naval facilities to U.S. forces, detained 31 suspected terrorists, froze terrorist financial assets, increased protection to shipping in the Strait of Malacca, and implemented the U.S. Container Security Initiative. Singapore's recently published

White Paper on the Jemaah Islamiyah terrorists and announcement to launch a terrorist research center in 2003/2004 testifies to its comprehensive strategy for combating terrorism in Southeast Asia. Our efforts with Singapore focus on reinforcing our already strong foundation through improved interoperability and cooperation.

Malaysia. Some of the most aggressive action against terrorism in Southeast Asia has occurred in Malaysia. To date, Malaysian security forces have arrested more than 70 suspected terrorists and have taken the lead in several initiatives aimed at increasing cooperation in combating terrorism and other areas of mutual interest. The proposed Regional Counter Terrorism Training Center in Kuala Lumpur is one such initiative and represents an important opportunity to enhance regional efforts at combating terrorism. By providing expertise, information, and funding when appropriate, we can assist Malaysia and other nations of Southeast Asia in developing the skills necessary to defeat terrorism. As a moderate Muslim nation with a secular democratic government, Malaysia's influence extends beyond the region. Its January announcement to discontinue funding for private religious schools is an example of a government taking action against the root causes of terrorism by not supporting deviant extremist teachings that breed hatred. Currently, Malaysia holds the chairmanship of the Organization of Islamic Conference and remains influential in the Non-Aligned Movement. Together, we remain committed to cooperating in areas of mutual interest and improving our ability to operate in combined regional efforts.

India. Based on the policy direction provided by the Indo-U.S. Defense Policy Group, USPACOM embarked on an aggressive security cooperation program with India over the past year. To date, our forces have conducted a number of successful exercises—ranging from airborne operations to surface warfare naval exercises—that have improved the combat effectiveness of U.S. forces. Over the past 10 months, USPACOM and its components have met with their Indian counterparts and established a long-range plan outlining mutually beneficial activities. These programs will increase our interoperability with, and access to, Indian forces. Our growing military cooperation supports the transformation of our relationship with India and serves to further this strategic partnership. This partnership was evident in India's strong support for the GWOT, most notably its naval escorts of U.S. ships transiting the Strait of Malacca last summer. As my recent trip to the troubled state of Kashmir confirmed, terrorists also menace India. Our improved relationships with India and Pakistan were invaluable as we helped these rivals step back last year from the brink of war.

Indonesia. The government of Indonesia responded admirably to the terrorist bombings in Bali on 12 October 2002, arresting many key operatives and developing information on the domestic and regional terrorist threat. Globally, radical Islam continues to destabilize Muslim countries and threaten the interests of tolerant, democratic nations. Indonesia is a key battleground in the struggle against terrorism and radicalism. In the face of economic turmoil, separatist and communal violence, and political transition, the world's most populous Muslim nation is struggling to maintain its secular, democratic character, and to cooperate with the international community in eliminating transnational security threats. The Indonesian military (TNI) is also going through a difficult transition from protector of an autocratic regime to defender of a popularly elected government. This is a significant cultural and institutional transition that will not happen by itself.

Accountability, essential to democratic civil-military relations, must improve. Critical to the success of this effort is Professional Military Education that exposes TNI officers to democratic norms and modern defense management techniques while building personal bonds of trust and goodwill. Particularly important is influencing the younger generation of officers to support the struggle against terrorism. International Military Education and Training (IMET) is another important tool as is FMF support for equipment, such as patrol boats for monitoring Indonesia's porous borders, to improve TNI's ability to counter transnational threats.

East Timor. This past May, Timor-Leste became the world's newest democracy following 20 plus years of occupation and over 200,000 deaths. Though the greatest credit for this achievement goes to the Timorese people, the U.S. military provided significant assistance in Timor-Leste's transition to a democratic state. Our U.S. Support Group East Timor (USGET) played a vital role in providing a stabilizing military presence during Timor-Leste's transition to independence. We conducted monthly ship visits, built schools and roads, repaired water and electrical systems, and provided medical and dental treatment for thousands of Timorese. We are proud of USGET and our military forces that contributed to Timor-Leste independence.

Although USGET deactivated on 17 December 2002, USPACOM continues to play a positive role in Timor-Leste's development as a democratic state. Through IMET

and Foreign Military Sales (FMS) we are funding English language training, helping develop the Timor-Leste Defense Force (ETDF) logistics system, purchasing basic equipment, and designing training programs to help develop Timor's Defense Secretariat and the ETDF. My key goals are to support the development of a civil/military defense establishment subordinate to civilian authority and the rule of law and help develop the ETDF as a credible self-defense force.

China. We have a modest but constructive military-to-military relationship with China. Our relationship is guided by PL 106–65 (NDAA 2000), which limits us to the areas of Humanitarian Assistance/Disaster Relief (HA/DR) and other non-warfighting venues. Our activities are part of ongoing DOD efforts to place such contacts with China on a new footing since the April 2001 aircraft collision incident. The U.S.S. *Paul Foster* port visit to Qingdao in November 2002 and my visit to China from 13–17 December 2002 were the first USPACOM bilateral military-to-military contacts with China since March 2001. One objective of these exchanges is to demonstrate the quality of our forces and our values by developing personnel exchanges between the younger generation of China's People's Liberation Army (PLA) and U.S. military personnel.

Taiwan. For Taiwan, our actions are guided by the Taiwan Relations Act. We have worked this past year to support self defense improvements that can best meet Taiwan's identified defense needs. We want Taiwan to remain stable, democratic, and economically prosperous while it develops a professional, civilian-controlled defense establishment with a modernized, joint operations-oriented military.

Asia-Pacific Center for Security Studies (APCSS) brings together current and future military and civilian leaders to discuss regional security concerns. The Center provides a unique platform to discuss security issues while promoting USPACOM and OSD regional cooperation policies. Now more than ever, we realize each country must contribute to regional security to assure its continued political, economic, and social stability. Through executive courses and conferences, the APCSS gives Asia-Pacific leaders a regional forum to recognize security challenges, not only from a U.S. viewpoint but also from the perspective 45 participating nations, including Russia, Chile, Canada, and Pakistan.

Center of Excellence (COE). COE's peace operations seminars have improved peace support capabilities in countries such as Thailand, Malaysia, Nepal, Bangladesh, and the Philippines. This improvement is evident in Thai and Filipino participation in peace stability operations in Aceh, Indonesia. These and other COE activities demonstrate our long-term commitment to relationships across the civil-military spectrum in the Asia-Pacific region. The Center's contributions complement other efforts to eliminate immediate terrorist threats. COE continues to prepare our forces to perform effectively in more complex environments with new actors and less predictable behaviors toward civilian victims of conflict. The Center's unique position as a civil-military humanitarian organization allows it to engage authorities from diverse countries in non-intrusive ways that help USPACOM reach out to new and otherwise reluctant partners. Your support for the COE in Disaster Management and Humanitarian Assistance provides valuable assistance in executing USPACOM priorities.

Chiefs of Defense (CHOD) Conference. One of our premier theater security activities, USPACOM annually hosts this regional conference, bringing together Asia-Pacific CHODs (CJCS equivalents) for a series of discussions on regional defense issues. The November 2002 conference, which was held in Singapore and was co-hosted by the Singapore Armed Forces and Chief of Defense Lieutenant General Lim Chuan Poh, gathered senior military leaders from 21 nations, including the Vice Chairman of the U.S. Joint Chiefs of Staff, General Pace. The conference's theme, "Meeting Security Challenges in the 21st Century," provided a forum for candid dialogue among senior leaders. The October 2002 Bali bombings heavily influenced discussions and underscored the ability of terrorists to cut across borders and present a common regional and global threat. The CHOD's conference continues to provide an excellent opportunity to foster understanding, build confidence among participants, strengthen relationships, and promote stability.

Foreign Military Financing (FMF) provides vital support to developing countries involved in the GWOT. Funds provided in the Foreign Operations, Export Financing and Related Appropriations Act, 2002 and the emergency FMF Supplemental directly supported Security Cooperation priorities in the East Asian Littoral and other regions in USPACOM. FMF delivers the military articles, services, and training required to support the efforts of our friends and allies that promote U.S. security interests. We appreciate your support of SA programs and our efforts to improve their effectiveness and responsiveness.

International Military Education and Training (IMET) is an effective, low-cost component of the SA effort. The program provides U.S. access to foreign govern-

ments and influences those governments far out of proportion to its modest cost. Furthermore, it exposes future leaders to U.S. values and commitment to the rule of law and the role of a professional military in a democratic society, and it promotes military professionalism. Recent restoration of full IMET to Indonesia is a welcome development. Having a core group of well-trained, professional leaders with first hand knowledge of our values and democratic institutions will make a difference in achieving our strategic security goals in Indonesia and throughout the theater.

Acquisition Cross-Servicing Agreements (ACSA) or Mutual Logistic Support Agreements (MLSA) have enhanced interoperability and readiness and provided a cost effective mechanism for mutual logistics support for U.S. and Allied Forces. USPACOM forces that participated in the fiscal year 2002 multinational exercise Cobra Gold greatly reduced their logistics footprint by using an ACSA. Three countries within USPACOM's AOR have deployed forces outside our AOR under ACSA provisions in support of the GWOT—Australia, New Zealand, and the Republic of Korea. Thus far, these countries have benefited from approximately $350,000 worth of logistics support, supplies, and services via reimbursable ACSA transactions. Primary logistics support provided includes food, medical services, dental support, force protection, transportation/material handling equipment, billeting, vehicle/equipment maintenance, and fuel. Thailand is preparing to deploy forces to the USCENTCOM AOR soon in support of the GWOT, and the ACSA has been instrumental in providing Thai forces with cold weather and NBC gear on a reimbursable basis. USPACOM has 10 ACSAs in place (Philippines, Australia, Korea, Japan, Singapore, Malaysia, Thailand, New Zealand, Fiji, and Tonga) with eight other countries within our AOR in DOD's ACSA—Eligible status (India, Indonesia, Bangladesh, Nepal, Brunei, Maldives, Madagascar, and Sri Lanka). We will continue to negotiate with ACSA-Eligible countries to expand the options we have to integrate coalition capabilities.

Forward stationed or deployed military presence provides the leading edge of U.S. combat power and forms the cornerstone of deterrence. Within the Asia-Pacific region this equates to roughly 100,000 forward-deployed personnel located primarily in the Republic of Korea and Japan. These forces deter conflict, dissuade competition, respond to crisis, man the infrastructure to receive follow-on forces, and fight if necessary. USPACOM is committed to developing the most effective regional command and control constructs to maximize the employment of our forward-deployed forces. In conjunction with ongoing DOD restructuring initiatives, we are reviewing these command and control structures and our force posture to ensure they are consistent with today's operational requirements and geo-political realities. The goal is to consolidate and transform our headquarters in Japan, the Republic of Korea, and throughout the region to provide an immediately employable force capable of decisive operational effects. Of course, these improvements will be undertaken in close consultation with our allies. Prototype command and control constructs such as the Joint Mission Force or Standing Joint Force Headquarters leverage both enhanced joint warfighting equities and transformation dividends. Along with our efforts to improve our command structure, we will continue to develop diversified access throughout the region. We foresee ongoing requirements to consolidate and improve our facilities in Korea, Japan, and other locations in the region. We also expect to enhance our access to facilities in Southeast Asia (SEA) and the South Asia Indian Ocean (SAIO) area to meet regional and global requirements and support the GWOT and other operational or contingency demands.

Promoting "Change" and Improving the Asia-Pacific Defense Posture

Our country is undergoing the most fundamental transformation of its defense strategy and Armed Forces since the Second World War. Guidance for this transformation is clear and starts with the National Security Strategy. At USPACOM, we are putting that guidance into action, operationalizing it with Asia-Pacific emphasis. Our efforts include strengthening command and control constructs, updating plans, improving force posture, diversifying access and enroute logistics, improving capabilities for immediate employment, and developing new operating patterns and concepts.

Our progress toward successful transformation of our force is the result of a deliberate, iterative process of innovation and experimentation. This process necessitates that we collaborate and stay in close touch with service initiatives—ensuring they are synchronized into the joint team. Likewise, we continue to build a collaborative bridge between our experimental efforts and the experimentation underway in USJFCOM, the lead command for joint experimentation.

Consistent with Secretary Rumsfeld's Transformation Planning Guidance, USPACOM has a multifaceted program covering a broad range of technological, or-

ganizational, and conceptual initiatives. It is a focused effort to explore and integrate innovative concepts and mature technologies to address our toughest challenges to effective joint operations.

Our transformation and experimentation efforts are necessary steps in advancing improvements to the speed of action and effectiveness of joint operations across strategic, operational, and tactical force levels. To date, our new standing operating procedures and enhancements to collaboration have yielded as much as 2 weeks' reduction in time to stand up and deploy a Joint Task Force (JTF) in response to a contingency. By experimenting with and fielding mature technologies and prototype decision tools—placing them in the hands of operators well within the traditional acquisition cycle time—we have established information superiority and enhanced efficiency for theater command and control. With continued support, we can zero-in on even greater improvements to JTF effectiveness, such as integration and synchronization of operational fire and maneuver, surpassing information superiority with decision superiority, and expediting the fielding of mature technologies and concept prototypes to forward-deployed JTF Commanders.

Within USPACOM, our Joint Mission Force (JMF) initiative provides the coherent framework for experimentation and transformation to enhance JTF operations across the spectrum of missions from forcible entry through humanitarian assistance. This mature initiative has allowed us to focus our transformational efforts toward a specific end-objective: seamless joint operations. The JMF concept will serve as USPACOM's segue to implementing the Standing Joint Force Headquarters as directed in the Defense Planning Guidance.

Each year during exercises such as Cobra Gold, our multilateral exercise cohosted with Thailand, and Tandem Thrust, our theater-wide biennial joint exercise with Australia, we experiment with JMF initiatives that address our "Top Ten Challenges" to enhancing JTF speed of action and effectiveness. By experimenting while we exercise, we can accurately assess the military utility of new technologies and procedures. As a direct result of success during exercises, JMF has fielded several key technologies within USPACOM's designated JTFs. Over the past year, Bandwidth Monitoring and Control devices have given our JTFs dynamic control of limited bandwidth for critical communications. The Automated Deep Operations Coordination System (ADOCS) now provides USPACOM Headquarters Joint Operations Center and our JTFs an interoperable tool for sharing a common operational picture for dynamic tracking and targeting and for conducting personnel recovery operations. JMF has provided our designated JTFs with a suite of collaborative tools and the training required for planning, executing, and assessing joint operations. Our design and implementation of a standard JMF web tool provides an internet "one-stop shop" for JTF real-time information sharing, planning, and execution.

Additionally, JMF has operationalized other important command-wide capabilities such as our Combined Operations Wide Area Network (COWAN) for secure operations with our coalition partners, the Asia-Pacific Area Network (APAN) for civil-military and non-government organization operations with coalition forces, telemedicine for joint medical operations (JMO–T), and language translation capability such as DARPA's "Phraselators."

To bridge the gap between our major joint exercises, hone readiness, and provide periodic spiral development opportunities, USPACOM conducts routine command and control exercises (C2X). These short duration, vignette-driven exercises not only test our JTF command and control procedures, they also provide an important venue for spiral technology and procedural development and fielding. This JMF initiative has proven effective in USPACOM as a readiness-enhancer.

Over the next 2 years, with your support, USPACOM's Joint Mission Force will integrate emerging technologies into information operations and intelligence, surveillance, and reconnaissance management. Our transformation and experimentation initiatives include our coalition partners.

In Korea, we have worked Integrated Total Asset Visibility and language translators during exercise Ulchi Focus Lens. USFK has the lead for the Theater Precision Strike Operations ACTD and this year is sponsoring the Theater Effects-Based Operations ACTD.

We have installed our JMF Web tool on the Japan Self-Defense Force bilateral secure wide-area network. We also have an information sharing agreement with Japan, and Japan has used Coalition Rear Area Security Command and Control in exercises such as Keen Edge and Yama Sakura.

As Cobra Gold 2002 participants, Singapore Armed Forces and Royal Supreme Thai Command members were directly involved with our initiatives for collaboration tools, virtual Civil Military Operations Center, and Cowan. Additionally, Singapore is participating in the Spartan ACTD and is pursuing involvement in other ACTDs, such as RESTOPS and JTF WARNET (Wide Area Relay Network).

The JTF WARNET initiative approved by the Joint Requirements Oversight Council (JROC) on 25 April 2002 provides organic, wireless secure Internet Protocol-based connectivity among tactical components of a JTF. WARNET applications, interfaces, and procedures enhance JTF command and control by sharing tactical situational awareness data among service command and control systems, enabling joint fires and collaborative planning and execution. JTF WARNET provided tactical-level force integration during Millennium Challenge 2002. We will conduct WARNET regional tests and a pre-deployment exercise in Hawaii and Japan in fiscal year 2003 before WARNET becomes a JTF operational capability in fiscal year 2004, culminating in Cobra Gold 2004.

USPACOM served as the host Combatant Command for the Joint Warrior Interoperability Demonstration (JWID) 2002 and will host JWID 2003. For the first time, Japan, Korea, and Singapore have been invited to sit on the Coalition Task Force (CTF) staff. Their inclusion in the traditional mix of U.S., NATO, U.K., Canada, Australia, and New Zealand participants is pushing the envelope on coalition interoperability as it demonstrates the true nature of our interoperability challenges.

The Regional Defense Counter-Terrorism Fellowship Program complements the IMET program. DOD funding has sent foreign military officers to U.S. military institutions and selected regional centers for non-lethal education. This program has provided regional combatant commands with additional flexibility in executing our security cooperation strategies and has had an immediate and positive impact in encouraging reform, professionalism, and regional cooperation in addressing counter-terrorism and other transnational threats.

The fellowship focus for USPACOM has been toward educational programs that encourage these advancements among Asia-Pacific nations addressing transnational threats with a focus on counter-terrorism. Specific courses have assisted in minimizing terrorist threats in the Asia-Pacific region, severing links between indigenous terrorist groups and global terrorist networks, allowing the establishment of a more professional military, developing stronger mutual security partnerships, and enhancing theater security cooperation. We are using the program to provide non-lethal training to Indonesian, Malaysian, and Philippine military officers at U.S. military educational institutions. U.S. military courses provide the basics for success in any military operation. A secondary benefit is the exposure students receive to the higher standards of ethics and behavior associated with a professional military that is under competent civilian control. Your continued support in providing this flexible funding alternative is appreciated.

C2 for Coalitions. The Multinational Planning Augmentation Team (MPAT) Program involves a group of military planners from the U.S. and many nations in USPACOM's Area of Interest. The purpose of MPAT is to increase operational interoperability among participating countries' interoperable planners who can rapidly augment a multinational force headquarters in response to a regional crisis. Using multinational, but standardized skills and procedures, MPAT planners would plan and execute coalition operations to support a multinational and interagency response to a small-scale contingency. Through a series of workshops and information exchange events, including four major crisis action planning exercises, MPAT members have developed a knowledge base of the various national crisis action planning procedures in the Asia-Pacific region. They have also developed a strong working relationship with each other. Military planners from over 25 countries and representatives from the UN and various non-governmental and international organizations have attended these workshops.

As part of the MPAT initiative, we and other nations in the region are developing a multinational force Standing Operating Procedures (MNF SOP) that any nation leading a coalition crisis response relief effort can use. This MNF SOP has coalition/combined task force activation, forming, and planning procedures focused on military operations other than war (MOOTW), from humanitarian assistance through peace operations, and includes counter-terrorism aspects. Planners from 30 nations practice and validate the MNF SOP during MPAT and other multinational exercises each year.

Since the Asia-Pacific region does not have a regional NATO-like organization, the MPAT and MNF SOP efforts represent the major regional program aimed at developing multinational procedures and maintaining a cadre of multinational military planners using common planning and operating procedures for coalition operations. USPACOM's Internet-based Asia Pacific Area Network (APAN) enables the working-level communications required to develop these procedures. APAN's easily accessible collaborative capability enables us to extend regional dialogues begun in functional forums such as CHOD conferences into exercises and operations that improve our regional response to the growing range of military missions we face today. The ability to place instructional material on APAN for mutual benefit of the U.S. and

Asia-Pacific partners would enhance the USPACOM Theater Security Cooperation program and U.S. national security interests. The provision of internet-based training and education should include such programs as Advanced Distributed Learning and similar internet tools. USPACOM could thereby more effectively use focused military education programs to develop regional skills required to accomplish cooperative security missions, improve civil-military relations, increase respect for human rights, and strengthen democratic principles.

I would like to express our appreciation for past congressional support of the Asia-Pacific Regional Initiative (APRI) appropriations—support that has ensured a robust beginning for these programs. As we continue with the MPAT and MNF SOP development, we will improve the capabilities and interoperability of countries in the region to support operations that we may lead while enhancing the ability of other countries to lead coalition operations as well.

Joint Task Force Full Accounting (JTF–FA). Achieving the fullest possible accounting of Americans is a high USPACOM priority, and we will continue to devote the necessary personnel and resources to obtain the answers the POW/MIA families so richly deserve. During fiscal year 2002, JTF–FA conducted 10 joint field activities (JFAs)—4 in Vietnam, 5 in Laos, and 1 in Cambodia. The JTF–FA field teams investigated 211 cases and excavated 50 sites. In total, they recovered and repatriated remains believed to be those of Americans unaccounted-for from the war in Southeast Asia from 27 sites (9 in Vietnam, 12 in Laos, and 6 in Cambodia). Furthermore, 31 individuals from recovery operations were identified and returned to their loved ones during this period. JTF–FA will maintain its pace of operations in fiscal year 2003, with 10 JFAs scheduled—4 in Vietnam, 5 in Laos, and 1 in Cambodia. JTF–FA will also conduct an underwater survey in China.

Following Deputy Secretary Wolfowitz's direction to determine the feasibility of merging JTF–FA and the Army's Central Identification Laboratories, Hawaii, we have put in place a comprehensive plan of action and milestones to ensure a smooth merger and standup date of 1 October 2003. Merging of the two units under a single command is operationally sound and will clearly demonstrate our government's commitment to our unaccounted for citizens. Three critical items remain. First, realignment of the Department of the Army's Central Identification Laboratory Hawaii (CILHI) funding to the Department of the Navy as Executive Agent for USPACOM and the merged organization. Second, transfer of Department of the Army civilian positions and functions to the Department of the Navy. Third, determining the permanent location of this new organization with the attended adjustment and advancement to the CILHI approved FY–08 MILCON headquarters building project.

Land Partnership Plan (LPP). The Commander of U.S. Forces Korea (USFK) has reached agreement with the ROK Government on an LPP that will consolidate U.S. force presence. The plan will reduce the number of major U.S. bases in Korea from 41 to 23 while significantly enhancing training and combined warfighting capability—better supporting our long-term regional strategy. The LPP will also have a significant positive affect on the quality of life of our servicemen and women and their families assigned to our forces on the peninsula. Our partner is committed—the LPP has received the full backing of the Korean Government and its National Assembly, and will be a model for future discussions.

Advanced Concept Technology Demonstrations (ACTDs). USPACOM continues to lead in innovating tactics, techniques, procedures, and concepts of operations that make the Nation's investment in science and technology productive for our soldiers, sailors, marines, and airmen in the field. We do so through a continual cycle of experimentation, demonstration, and special projects aimed at our early understanding of emerging technologies and their impact on military operations in the Asia-Pacific region.

Transformation depends heavily on ACTDs. Today we are involved in 19 ACTD projects, more than any other regional command. We have distributed the Transformation workload across the whole theater—almost all service component and Sub-Unified Commanders and most of my Staff Directors have responsibility for executing one or more ACTD.

Our new fiscal year 2003 ACTD will provide us with new tactical capabilities. The Overwatch ACTD will give us a capability to detect and pinpoint sniper fire in an urban environment, enhancing security and situational awareness for our troops in the field. In addition to our new ACTDs, we have pioneered co-development of technology with Singapore with the SPARTAN Unmanned Surface Vessel ACTD. This ACTD provides technological developments to improve capabilities for multi-mission packages in Mine Warfare, force protection, precision strike, and intelligence, surveillance, and reconnaissance. Additionally, it will enhance battlespace awareness and increase force protection for surface and subsurface operations through the unmanned surface vessel with modular sensor packages.

The ACTD program is clear proof that when system developers and operators come together we can get useful military products into the hands of the user faster than with standard acquisition. However, this is only true if the technology successfully transitions into a program of record. I am proud to report that we will successfully transition all five of our ACTDs completed this year. Soon all combatant commanders will reap benefits in the areas of Joint Fire Control, personnel recovery, small unit logistics, telemedicine, and decision-support tools from our completed projects.

Our Joint Experimentation program focuses on Joint Task Force (JTF) operations. It is fully coordinated with the U.S. Joint Forces Command's Joint Experimentation Program and includes technology insertion experiments during our regular exercises to advance our state of practice of JTF operations, both in the U.S. only venue and in coalition venues. This year, we executed the first two major experiments. The first occurred as part of our C2X exercise series where we train to establish command and control of a deployed JTF. The experiment augmented our normal C^4I surveillance and reconnaissance equipment suites with new capabilities to manage and control information flow on the JTF networks and provide enhanced fires management capabilities across the joint force. Our second experiment occurred in a coalition environment during the Cobra Gold exercise with Thailand, Australia, Singapore, and Malaysia. We also added new technology from Defense Advanced Research Projects Agency (DARPA) to improve network security and the commander's understanding of the war plan. We are finding that by experimenting as we exercise, we can provide a continuous series of warfighting improvements that are field tested in joint and combined operations before we make key procurement decisions.

I've highlighted just a few of the experimentation and modernization initiatives in USPACOM. Our initiatives, like those of other Regional Combatant Commanders and the Services, in concert with USJFCOM, promise to modernize the force and enhance mission capability. We are working hard with USJFCOM to synchronize and bring coherence, prioritization, and continuity to the transformation of our forces.

SUMMARY STATEMENT

America's Armed Forces in the Pacific continue to promote security, peace, and prosperity in the Asia-Pacific region. Through the professional efforts of our dedicated men and women, we continue to assure our allies, dissuade our adversaries and deter aggression. We are relentlessly pursuing terrorists, improving our force protection posture and maintaining our readiness so that if called upon, we will decisively defeat any adversary. U.S. Pacific Command's priorities for the near term remain unchanged: sustaining and supporting the global war on terrorism; improving our Readiness and Joint Warfighting Capability; improving the Quality of Service for our soldiers, sailors, airmen, and marines; reinforcing the Constants in the Pacific Region; and promoting change and improving our Asia-Pacific Defense Posture for the Future.

The men and women of the U.S. Pacific Command welcome this opportunity to tell their story. The support of Congress and the American people is greatly appreciated. Thank you.

Chairman WARNER. General.

STATEMENT OF GEN. LEON J. LAPORTE, USA, COMMANDER IN CHIEF, UNITED NATIONS COMMAND, U.S. FORCES KOREA, COMBINED FORCES COMMAND KOREA

General LAPORTE. Chairman Warner, Senator Levin, and distinguished committee members, I am honored to appear before the committee to update you on the current situation in the Republic of Korea (ROK). First, I want to extend the thanks of all the soldiers, sailors, airmen, and marines, and the Department of Defense civilians that serve in Korea. Your consistent support enables us to maintain readiness and for us to be able to accomplish our mission on the Korean Peninsula.

The past year was extraordinary for those who served in Korea. We have deterred North Korean aggression while maintaining a high state of readiness. In May when I took command, I established five priorities: first was to ensure peace and stability on the

Peninsula and in the northeast region. Second was to ensure that our forces were trained and ready for their deterrence mission and, if needed, to conduct combat. Third was to strengthen the very strong Republic of Korea-United States Alliance. Fourth was to transform the command into a 21st century capability. Finally, it was to make Korea an assignment of choice for all U.S. service members.

2002 marked the fourth democratic transfer of power in the Republic of Korea, renewed South Korean efforts toward inter-Korean reconciliation and the first World Cup hosted in Asia. In contrast, there were some discouraging incidents as well: North Korea's unprovoked attack, which resulted in the sinking of a Republic of Korea naval patrol boat in the West Sea and increased regional tensions; and the revelation, too, of the North Korean nuclear weapons development program; and also a cyclic rise in anti-United States Forces Korea sentiment.

The Republic of Korea-United States Alliance weathered the challenges of 2002 and continues to be the foundation of peace and security throughout Northeast Asia. In 2002, the United Nations Command has made significant contributions to inter-Korean initiatives by the South Korean Government while maintaining the effectiveness of the armistice agreement, most notably to reduce tensions following the 20 June North Korean attack on the Republic of Korea naval ship, and also in the development and operation of the transportation corridors.

Combined Forces Command, the backbone of the ROK-U.S. Alliance, continued to modernize capabilities and work together to deter the North Korean threat. United States Forces Korea established the groundwork for its transformation to a capabilities-based force for the 21st century. This transformation, as determined by the ROK-U.S. Future of the Alliance policy initiative, will ultimately result in a better and more capable disposition of forces throughout the region.

Our alliance, forged in blood of 415,000 South Koreans and 33,000 Americans who gave their lives during the Korean War, remains strong and committed to the tenets of the mutual defense treaty. The challenges of 2002 have firmly reinforced three points.

First, the events in Korea affect the entire world, North Korea remains a serious threat to regional and global stability; continued United States presence in northeast Asia is critical to regional stability; and the Republic of Korea-United States Alliance is essential to continue regional security.

2003 will be a pivotal year for the Republic of Korea. As the international community works to resolve the North Korean nuclear weapons issue, security and stability will remain a common denominator of our alliance. As the first 50 years of our mutual defense and security relationship comes to a close, we will achieve closely to the principles of the 1953 mutual defense treaty as we prepare for the next 50 years.

I thank you for the opportunity to appear before this committee and look forward to your questions.

[The prepared statement of General LaPorte follows:]

PREPARED STATEMENT BY GEN. LEON J. LAPORTE, USA

INTRODUCTION

Mr. Chairman and distinguished members of the committee, I am honored to appear before you as Commander, United Nations Command; Commander, Republic of Korea-United States Combined Forces Command; and Commander, United States Forces Korea. On behalf of the more than 37,000 soldiers, sailors, airmen, marines, and 5,700 civilians serving in Korea, I thank you for your unwavering support which enables us to maintain readiness and accomplish our deterrence mission on the Korean peninsula. I appreciate this opportunity to present an assessment of the command's status.

This has been an extraordinary year in Korea. 2002 marked the 4th democratic transfer of power in the Republic of Korea, renewed South Korean efforts toward inter-Korean reconciliation, and the first World Cup hosted in Asia. In contrast, there were some discouraging incidents as well: North Korea's calculated armistice violation in the West Sea, exposure of the North Korean nuclear weapons programs, a tragic training accident in June, and cyclic rise of anti-United States Forces Korea sentiment. With consistency and determination, North Korea attempts to split the Republic of Korea-United States Alliance by exploiting these events. Our Alliance weathered these incidents and continues to be the foundation of peace and security throughout the Northeast Asia region. These incidents have firmly reinforced three points: the consequences of events in Korea affect the entire world; continued United States presence in Northeast Asia is critical to regional stability; and the Republic of Korea-United States Alliance is essential to regional security.

Today, I will address current and future requirements by looking at: the Northeast Asia security environment; the North Korean challenge to regional and global security; the Republic of Korea-United States Alliance; and my command priorities—Ensure peace and stability on the Korean peninsula, Readiness and Training, Strengthen the Republic of Korea-United States Alliance, Transform the Command, and Make Korea an Assignment of Choice.

THE NORTHEAST ASIA SECURITY ENVIRONMENT

Northeast Asia is a nexus of economic might, competing interests, converging threats, cultures, and historical animosities. Over 17 percent of the world's trade value is with countries in Northeast Asia, and United States trade with the region is second only to our trade with the North American Free Trade Association.[1] Many of the nations in the region—China, Japan, Russia, and the Republic of Korea—are contending for economic and political influence. Enduring cultural and historical animosities remain a dynamic political force. This region marks the convergence of five of the world's six largest militaries, and three of the five declared nuclear powers. Today, the current military demarcation line between North and South Korea is the most heavily armed in the world and remains an arena for confrontation. North Korea's pursuit of nuclear weapons and proliferation of missile technology threatens regional and global stability. United States presence in Korea demonstrates our firm commitment to defend democratic values and prevent our enemies from threatening us—and our partners—including with weapons of mass destruction. Our forces in Korea send the clear message that we will stand with our allies and friends to provide the stability that promotes prosperity and democratic values.

The Republic of Korea Today

The Republic of Korea is fast becoming a global economic competitor. In 2002 the Republic of Korea's economy grew 6 percent while boasting the world's 11th largest Gross Domestic Product and third largest cash reserves.[2] The South Korean people are justifiably proud of these achievements and the Republic of Korea's increasing international prominence. The Republic of Korea's vision of the future is to diversify its economy by becoming the "transportation, financial, and information technology hub of Northeast Asia."[3] This vision seeks to route Northeast Asia, Europe, and the

[1] Derived from U.S. Census data. For the first 11 months of 2002, total trade with Northeast Asia ($U.S. billion) are: Japan $172.92, China $148.13, Republic of Korea $58.13, Taiwan $50.60. Trade with NAFTA during the same period was $557.39 (Canada $342.55 and Mexico $214.73), (http://www.census.gov/foreign-trade/top/dst/2002/11/balance.html) accessed 19 February 2003.

[2] United States Department of State, Country Commercial Guide Korea, Fiscal Year 2003.

[3] President Roh, Moo-hyun announced his intent to position the Republic of Korea as the "economic powerhouse of Northeast Asia". In public appearances, he amplified this vision stating

Continued

Americas trade through the Republic of Korea using an inter-Korean transportation system. To achieve this goal the Republic of Korea must significantly increase cooperation with North Korea. Inter-Korean initiatives begun by former President Kim Dae-Jung and continued by President Roh Moo-Hyun pursue reconciliation for cultural, economic, and humanitarian reasons. The Republic of Korea's engagement policies toward North Korea profoundly affect how South Koreans view their relations with the United States and North Korea.

Many South Koreans under age 45, a generation that has lived in an era of peace and prosperity, have little or no understanding of the North Korean threat. These South Koreans perceive North Korea not as a threat but rather as a Korean neighbor, potential trading partner and a country that provides access to expanded Eurasian markets. This perception of North Korea contrasts with America's view that North Korea is a threat to regional and global stability. This divergent view of North Korea, coupled with strong national pride, has been a cause of periodic tension in the Republic of Korea-United States Alliance.

There have always been groups in the Republic of Korea that are critical of United States policy and claim that the United States hinders inter-Korean reconciliation. Demonstrations against American policy and military presence increased sharply during this year's Republic of Korea presidential election. Political interest groups made claims of inequity in the Republic of Korea-United States alliance a central issue during the presidential campaign. Opposition groups exploited a United States military court's acquittal of two American soldiers charged with negligent homicide in the tragic training accident that claimed the lives of two South Korean schoolgirls last June. Non-governmental organizations asserted that the Status of Forces Agreement (SOFA) was unjust and that the acquitted soldiers should have been tried in a Republic of Korea court rather than by a United States military court. During the presidential election campaign, these groups used biased and inaccurate media reporting to inflame anti-United States Forces Korea sentiments and mobilize demonstrations, a traditional tool of political protest in the Republic of Korea. Regrettably, several of these protests turned violent.

Since the December 2002 Republic of Korea presidential election, anti-United States Forces Korea demonstrations have virtually disappeared, due in large part to positive steps taken by United States Forces Korea, the United States Embassy, and the Republic of Korea government. Through our Republic of Korea-United States Status of Forces Joint Committee process, we identified ways to improve implementation of the 2001 Status of Forces Agreement. Convening a Republic of Korea-United States Status of Forces Agreement Special Joint Task Force, we incorporated recommendations in vehicular safety, convoy operations, and joint investigation procedures. This Special Joint Task Force assisted United States Forces Korea and the Republic of Korea's government in explaining the provisions of the Status of Forces Agreement to the Korean people.

The prompt and comprehensive actions of the Status of Forces Agreement Joint Committee addressed the concerns of many South Koreans. Shortly after his election, President Roh, Moo Hyun voiced support for a strong Republic of Korea-United States alliance and continued United States military presence in Korea even after reconciliation. Acknowledging the rationale for the Alliance, he expressed a desire to re-examine the relationship based on the principles of equal partnership and greater emphasis on shared interests. Since the presidential election, pro-American groups, some as large as 100,000 people, in the Republic of Korea have conducted demonstrations supporting the continued stationing of United States Forces in the Republic of Korea. In this the 50th anniversary of the Alliance, we have an opportunity to revitalize the Alliance in constructive ways that enhance this mutually beneficial partnership while ensuring peninsula and regional security.

We can improve the Republic of Korea-United States Alliance by closely examining the roles, missions, capabilities, force structure, and stationing of our respective forces. This includes the Republic of Korea assuming the predominant role in its defense and increasing both Republic of Korea and United States involvement in regional security cooperation. These efforts will enhance our partnership while fully acknowledging the Republic of Korea's contributions to burdensharing, support to the war on terror, and their modernization program for defense of the Republic of Korea.

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that he sought to make South Korea the transportation, financial, and information technology hub of Northeast Asia. For President Roh's national priorities, see Korea Herald articles at http://kn.koreaherald.co.kr/SITE/data/html—dir/2003/01/11/200301110003.asp, http://kn.koreaherald.co.kr/SITE/data/html—dir/2002/12/28/200212280010.asp.

Republic of Korea Defense Burdensharing

Defense burdensharing is an important part of maintaining the readiness of United States Forces Korea. The Republic of Korea burdensharing contribution in 2002 was $490 million, 41 percent of total United States Forces Korea non-personnel stationing costs, behind Japan and Germany in Allied burdensharing. In 2003, the Republic of Korea's contributions will increase to $539.5 million. The Republic of Korea's annual burdensharing contributions have increased significantly since the Asian financial crisis, rising over $206 million (62 percent) since 1997.

The Republic of Korea's support for the war on terror

The Republic of Korea has continued its steadfast support to the global war on terror. The Republic of Korea's National Assembly extended its mandate through 2003 and increased its commitment of support forces to Operation Enduring Freedom. Today Republic of Korea liaison officers are planning and coordinating with their United States counterparts at both Central Command and Pacific Command headquarters. The Republic of Korea's military is supporting the war on terror from Tampa, Florida, throughout the Pacific, and in Kyrgyztan and Afghanistan. The Republic of Korea has provided several contingents of support troops to include a navy transport ship moving essential airfield material to Diego Garcia, four C–130 cargo aircraft to support the United States Pacific Command's operations, and a hospital unit in Bagram. In February 2003, a Republic of Korea engineering unit began deployment to Bagram Air Base, Afghanistan. In addition, the government of the Republic of Korea has provided $12 million of their $45 million pledge to fund humanitarian and rebuilding efforts in Afghanistan.

Republic of Korea's military modernization

The Republic of Korea's Ministry of National Defense has made a long-term commitment to acquire the necessary capabilities to secure the Republic of Korea against current and emerging threats. The Republic of Korea's military modernization program involves significant purchases of United States equipment to improve interoperability. Over the last decade, 82 percent of the Republic of Korea's equipment purchases have been United States equipment. Last year direct Foreign Military Sales of United States military equipment to the Republic of Korea exceeded $1.8 billion and commercial agreements were reached to deliver over $4 billion of additional military equipment over the next few years. Boeing was awarded the contract to deliver 40 F–15K aircraft between 2005 and 2008. This year, the Republic of Korea is taking delivery of 20 additional KF–16 aircraft, procuring its second battalion of Multiple Launch Rocket Systems, and extended range munitions. The Republic of Korea's Navy is building three new destroyers, equipped with the AEGIS system.

The Republic of Korea's military has made strides in improving its capabilities; however, its small budget, as a fraction of Gross Domestic Product, restrains modernization efforts. In 2003, the Republic of Korea's defense budget increased 6.5 percent to $14.2 billion but fell from 2.8 percent to 2.7 percent of Gross Domestic Product. This has left some key programs unfunded or delayed, continuing a 10 year trend. The Republic of Korea has delayed purchase of critical equipment in the required quantities—theater air and missile defense systems, early warning and control aircraft, and upgraded equipment for their Special Operations units. Acquiring these systems provides critical capabilities to ensure the Republic of Korea's security against threats posed by North Korea.

NORTH KOREAN CHALLENGES TO REGIONAL AND GLOBAL SECURITY

North Korea is a dangerous dictatorship that continues to threaten peace, security, and stability in Northeast Asia. The Kim Jong Il Regime uses illicit activities to fund the extravagant lifestyles of the inner circle and is using its military capabilities to extort resources from the international community. North Korea poses several threats to global stability: an economy on the brink of collapse; an active nuclear weapons development program; growing proliferation of missiles, chemical, and biological weapons technologies; and large conventional forces and special operations forces that directly threaten our allies. North Korean brinksmanship ensures that the Korean Peninsula remains a place of palpable danger, illustrated by North Korea's unprovoked attack on a Republic of Korea patrol boat in the West Sea on 29 June 2002 and North Korean efforts to develop highly enriched uranium nuclear weapons. North Korea continues to flagrantly violate its international agreements resulting in increased regional tensions. The Republic of Korea and United States Forces continue to face the possibility of a high intensity war involving large conventional forces and significant weapons of mass destruction.

North Korean Political Environment

Kim Jong Il is firmly in control. He is the ultimate decision maker who controls the state security apparatus and occupies all key party, military, and government leadership positions. Kim relies on a core group of elites to maintain power. This inner circle, not the formal hierarchy of the party and government, run all the major North Korean institutions. Kim provides the ruling elite with a relatively luxurious lifestyle, while the masses live in poverty. Kim's overriding goal is regime survival. His intent remains to dominate the Republic of Korea and to reunify the peninsula under North Korean leadership.

North Korean Economic Environment

The most pressing problem facing North Korea is its failing economy. Economic output has shrunk by nearly one-half since 1993. The country suffers from obsolete production facilities and severe shortages of capital, energy and raw materials. Industrial facilities, other than those devoted to defense industries, are nearly beyond repair as a result of more than a decade of under-investment and critical spare parts shortages. Most factories operate at less than 25 percent capacity.

Despite severe economic problems and acute deprivation among the general populace, the Kim Regime chooses to maintain a large, capable, and forward deployed conventional military force. North Korea's "Military First" policy ensures the military receives top priority in all resources, at the expense of the North Korean people. The military consumes about one third of the North Korean budget. The military operates a parallel economy producing conventional weapons, missiles, and illegal drugs for sale on the open market as well as large-scale smuggling and currency counterfeiting. Most of the profits from these activities accrue directly to the military, with the remainder going to Kim and the elite. Kim Jong Il continues to buy the loyalty of his elite by providing luxury cars, housing, food, and special medical care.

To prop up the progressively deteriorating North Korean economy, Kim Jong Il has implemented a number of initiatives. He has invigorated ideological campaigns that demand loyalty and perseverance—encouraging the North Korean people to endure hardships for the good of the nation. To complement the ideological campaign, the Kim Regime has tightened security and increasingly militarized North Korean society to preclude broad internal dissent. North Korea has turned to foreign aid, primarily from the United States, the Republic of Korea, Japan, and China to meet its food and fuel needs. The Kim Regime has implemented limited economic reforms, including unprecedented wage and price increases, designed to jump-start the economy; however these efforts have not revitalized the North Korean economy. Unless North Korea embraces a more open market economy—a prospect that Kim Jong Il fears will threaten his control—we expect no significant economic improvement in the foreseeable future.

North Korean Nuclear Issues

North Korea's nuclear weapons program poses a very serious threat to the United States and our allies, risks regional stability, and challenges the international nonproliferation regime. During a meeting with Assistant Secretary of State James Kelly in early October 2002, North Korea acknowledged its pursuit of a covert program to enrich uranium for nuclear weapons. In a 16 October statement, North Korea admitted a series of actions that violate the Nuclear Nonproliferation Treaty, the International Atomic Energy Agency Safeguards Agreement, the 1992 Joint North-South Declaration on the Denuclearization of the Korean Peninsula and the 1994 Agreed Framework. We assess that the Kim Regime believes possession of nuclear weapons will guarantee survival.

The North Koreans have again resorted to brinksmanship using the nuclear issue in an effort to gain economic and political concessions through negotiations. On 10 January 2003, they expressed their intention to withdraw from the Nuclear Non-Proliferation Treaty. Restarting the Yongbyon nuclear reactor near Pyongyang has prompted fears that it intends to produce nuclear weapons in the near future. If North Korea begins reprocessing existing fuel rods at the Yongbyon facility, it could produce enough material for five to eight nuclear weapons within a year. North Korea's history of selling missiles and missile-related technologies to any state or group with hard currency raises serious concerns about the potential for nuclear weapons technology or scientific know-how to find their way from North Korea to the hands of terrorists.

North Korean Ballistic Missile Sales

North Korea's ballistic missiles, capable of delivering weapons of mass destruction, are a threat to the region and a destabilizing influence in the world. North

Korea remains one of the few countries willing to sell to anyone with cash complete missile systems, production facilities, and technological assistance. These sales in turn contribute to instability in regions such as the Middle East and South Asia. Although Kim Jong Il told President Putin and Prime Minister Koizumi last year that the current ballistic missile flight-testing moratorium will remain in place beyond 2003, North Korea has repeatedly threatened to restart missile test launches.

Role of the North Korean Military

The Korean People's Army ensures regime survival by controlling the internal situation and deterring external threats. It is the one instrument of national power that enables North Korea to extract aid from its neighbors in the region. The military also plays a major role in the economy. Although a decade of resource shortages has left the North Korean military ill-prepared to fight and win a war to reunify the Peninsula, there are no indications that the Kim Regime has abandoned the forced reunification option.

Conventional Forces: With 1.17 million personnel, the Korean People's Army is the fifth largest active duty military force in the world. The North Korean air force has over 1,700 aircraft and the navy has more than 800 ships, including a large submarine fleet. The ground force is the world's third largest, with almost one million soldiers, and an estimated 6 million Reserves. About 70 percent of the North Korean Army is deployed south of Pyongyang, where they are capable of attacking with very little tactical warning. The preponderance of the North Korean long-range artillery force can strike Seoul from its current locations.

Asymmetric Threat: The North's asymmetric forces are dangerous, well trained, and well funded by the North Korean military budget. They continue to make methodical improvements in weapons of mass destruction, ballistic missiles, and special operations forces.

North Korea is openly pursuing weapons of mass destruction. Their program to develop both plutonium and uranium based nuclear weapons has been well documented. North Korea maintains a substantial chemical weapons stockpile and production capability that threatens both our military forces and the civilian population centers in the Republic of Korea and Japan. Additionally, North Korea has the capability to develop, produce, and potentially weaponize biological warfare agents. The principal risk attendant to the North Korean weapons of mass destruction is proliferation—the sale of fissile materials, completed nuclear weapons, and the technology to produce chemical or biological agents to other nations or terrorist organizations.

Their ballistic missile inventory includes over 500 SCUD missile variants that can threaten the entire peninsula. They continue to produce and deploy medium-range No Dong missiles capable of striking cities and United States bases in Japan. According to estimates by the Central Intelligence Agency and the Defense Intelligence Agency, North Korea has an untested ballistic missile capable of delivering a payload the size of a nuclear weapon to parts of the continental United States. Continued research on a three-stage variant of these missiles will provide North Korea the capability to target all of North America. As with weapons of mass destruction, North Korean missile proliferation poses a threat far beyond the Korean peninsula.

North Korea's 122,000-man special operations forces are the world's largest and pose a significant asymmetric threat. We consider them a tough, dedicated, and profoundly loyal force. They undergo year-round training to develop and maintain their skills. During wartime, these forces would attack to disrupt command facilities of the Republic of Korea-United States Combined Forces Command and seek to destroy our force generation capability. The North will concentrate their special operations forces against our critical war fighting nodes while seeking to deny reinforcement from the continental United States.

Force Improvements: The North Korean military is adaptive. They have studied our military actions, most recently in the Balkans and Afghanistan, and adapted their tactics to offset our technological advantages. They concentrate their efforts against the combined surveillance, precision attack, and force generation capability of the Republic of Korea and the United States. North Korea continues to improve their command, control, communications, and intelligence systems, harden and bury their facilities, improve lines of communication, disperse forces, and improve camouflage, concealment, and deception measures. These efforts increase the survivability of North Korean combat power, and complicate our attack warning capability.

Assessment: North Korea poses a dangerous and complex threat to peace and security on the peninsula and throughout the region. Their growing missile and weapons of mass destruction programs, including a re-vitalized nuclear weapons program, constitute a substantial threat to the world. Moreover, they have shown willingness to sell anything to anybody for hard currency. They will continue to support

the military at the expense of the general population and extort aid to prop up their failing economy. We see no indications that the Kim Regime will change the policies of military first, brinkmanship, and missile proliferation throughout the world.

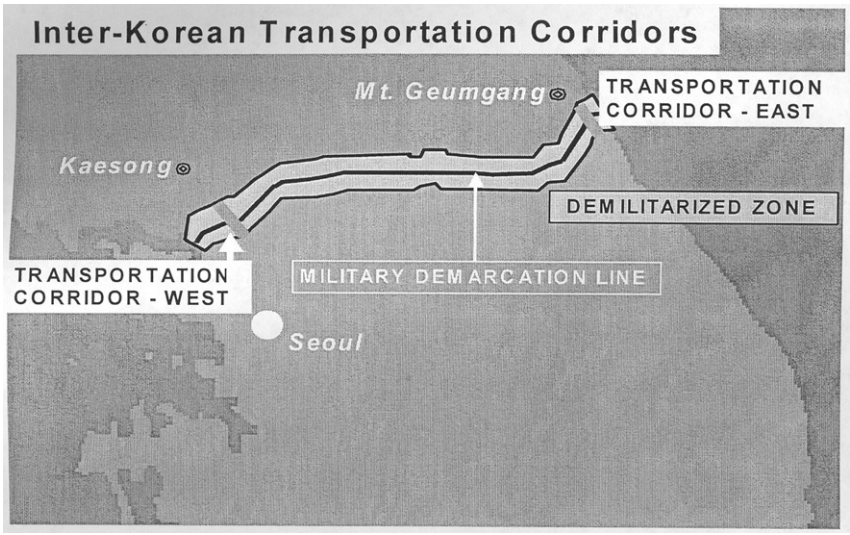
UNITED NATIONS COMMAND, COMBINED FORCES COMMAND, AND UNITED STATES FORCES KOREA

Since I took command in May 2002, I have had several opportunities to assess the capabilities and readiness of United Nations Command, Combined Forces Command, and United States Forces Korea. Key events included response to the West Sea Armistice Violation by North Korea, security for development of the inter-Korean transportation corridors through the Demilitarized Zone, and security support for the 2002 World Cup and Asian Games.

United Nations Command

Under the mandate of Security Council Resolutions 82, 83, and 84, the United Nations Command in Seoul provides a standing coalition with 15 member nations to address trans-national interests in regional stability. United Nations Command led the international response to the 29 June 2002 West Sea Armistice violation by the North Koreans. This egregious, unprovoked North Korean attack in the West Sea sank the Republic of Korea patrol boat SOSAN; killing 6 and wounding 19 Republic of Korea sailors. The United Nations Command member nations promptly issued strong statements denouncing the North Korean aggression. Facing this international censure, North Korea reluctantly expressed regret over the incident and agreed to the first United Nations Command—Korean Peoples Army General Officer talks in almost 2 years. At the General Officer talks, North Korea guaranteed not to interfere with a United Nations Command-led salvage operation. Under the United Nations flag, the Republic of Korea's navy successfully salvaged the sunken boat. United Nations Command observers ensured neutrality and transparency of the salvage operation. The strength of the Republic of Korea-United States Alliance, backed by the United Nations Command member nations, led to a successful West Sea recovery operation and reinforced the legitimate authority of United Nations Command to enforce the Armistice. United Nations Command again provided a stabilizing force and prevented a dangerous situation from escalating into open hostilities.

Following the West Sea salvage operation, the Republic of Korea and North Korea held the Seventh Inter-Korean Ministerial talks, during which they re-invigorated efforts to establish inter-Korean transportation corridors. These corridors allow reconnection of rail lines and roadways through two designated points in the Demilitarized Zone to facilitate inter-Korean humanitarian visits and commerce. To support this Republic of Korea reconciliation initiative, United Nations Command worked closely with the Republic of Korea's Ministry of National Defense to establish special coordination measures between the Republic of Korea's Ministry of National Defense and the North Korean People's Army to speed construction and operation of the transportation corridors while ensuring compliance with the Armistice Agreement and security of the Demilitarized Zone. The first group of passengers crossed the Military Demarcation Line through the eastern corridor on 14 February 2003. This was the first time in 50 years that citizens of the Republic of Korea crossed directly into North Korea and is a clear demonstration of successful cooperation between the Republic of Korea and United Nations Command. The figure below illustrates the location of the east and west inter-Korean transportation corridors through the Demilitarized Zone.



Combined Forces Command

Combined Forces Command ensures the security of the people of the Republic of Korea. Combined Forces Command provides the military force that deters external aggression and stands ready to defeat any external provocation against the Republic of Korea. Combined Forces Command, composed of air, ground, naval, marine, and special operations components, conducts combined training exercises and readiness inspections to maintain the warfighting readiness that is essential to deterrence. Combined Forces Command headquarters is a fully integrated staff, manned by Republic of Korea and United States military officers. This thoroughly integrated headquarters coordinates the operations that deter external aggression. In 2002, Combined Forces Command assisted with the successful United Nations Command salvage operation in the West Sea and with military security support to the World Cup and Asian Games.

Leveraging Combined Forces Command wartime operational procedures, United States Forces Korea and Republic of Korea forces shared information and conducted combined exercises to deter terrorist infiltrators seeking to disrupt the games. Combined Forces Command operated a Crisis Action Response Team to quickly respond to any type of incident. United States Forces Korea provided unique biological and radiological defense assets to augment the Republic of Korea's military capabilities. Our close cooperation ensured a secure 2002 World Cup and demonstrated the agility of Combined Forces Command to conduct a wide range of operations.

United States Forces Korea

United States Forces in Korea are the tangible demonstration of United States commitment to peace and stability in Korea and throughout Northeast Asia. United States Forces Korea brings the robust technological superiority, information dominance, and warfighting prowess that complement and buttress the Republic of Korea's military capabilities. Our forward presence deters North Korean aggression and convinces North Korea not to start a devastating war that would only have tragic consequences throughout the region. To maintain the dominance that ensures deterrence, we must maintain state-of-the-art capabilities in Korea. My top priorities for force modernization are: increasing C^4ISR functionality and interoperability, increasing the pre-positioned stocks of preferred munitions, improving counter fire capabilities, missile defense, force protection, and logistics. These capabilities support peninsular defense and regional security operations.

C^4ISR functionality and interoperability

United States Forces Korea continues to work hard to achieve the decision superiority needed to execute effects-based operations. We have made significant improvements in the combined Command, Control, Computers, Communications, and Intelligence architecture in Korea. Over the last year we have created a combined Com-

mon Operational Picture that integrates Republic of Korea Unmanned Aerial Vehicles, Tactical Data Links from both Republic of Korea and United States air and naval vessels and live video feeds from throughout the theater. We seek to expand these capabilities by adding logistics and engineering Common Operational Picture currently under development at Joint Forces Command. We thank you for your support, which has allowed us to progress this far. However, this common operational picture is built on an aging communications infrastructure that is increasingly expensive to maintain. We need to continue improving Command, Control, Computers, Communications, and Intelligence functionality and interoperability.

The strategy for improving our Command, Control, Computers, Communications, and Intelligence requires improved secure digital networks, collaborative planning tools, and enhanced interoperability. Our secure digital networks need significant technology upgrades to improve the efficiency of information exchange. High-speed internet encryption will enable us to prioritize and rapidly transmit secure data throughout the theater. We also need to increase our secure long-haul communications networks to effectively collaborate with United States Pacific Command and the Joint Chiefs of Staff. Improving these networks provides the infrastructure required to upgrade our collaborative planning tools and interactive displays to provide real-time decision support.

Improving interoperability of Republic of Korea and United States Forces Korea communications systems is paramount. The Program Budget Decision 725 has helped us to address our Command, Control, Computers, Communications, and Intelligence shortfalls. Some examples of key interoperability programs that need your continued support are integration of Republic of Korea Command Post Automation System and United States Global Command and Control System-Korea; integrating tactical Mobile Subscriber Equipment; and expanding Automated Deep Operations Coordination System. I urge your continued endorsement of Program Budget Decision 725 to maintain this funding across the Future Years Defense Plan.

Preferred Munitions

The complexity of Korean terrain and weather require the all weather capability provided by precision munitions. Our operational planning leverages "preferred munitions" to conduct precision strike against essential military targets. While we can conduct a successful campaign without precision munitions, it would be longer and more costly in terms of infrastructure damage and human suffering. Korea's weather often impacts our munitions choices, but Global Positioning Satellite-guided Joint Direct Attack Munition and inertial-guided Wind Corrected Munitions Dispenser give us the capability to sustain our operations when the weather precludes the use of other munitions. Some key requirements for this theater are: Joint Direct Attack Munition, Wind Corrected Munitions Dispenser, Conventional Air Launched Cruise Missile upgrades, Guided Multiple Launch Rocket System rockets, Javelin and Hellfire anti-tank weapons. We must maintain adequate stocks of these munitions on the peninsula. Critically important are early development and fielding of munitions to defeat the hard and deeply buried targets prevalent throughout North Korea. Toward that end, United States Forces Korea is sponsoring two promising Advanced Concept Technology Demonstrations—thermobaric weapons and tactical missile system penetrator munitions, which will carry the fight to the enemy wherever they seek to hide. I ask that you continue to support development and production of the advanced precision munitions required to support all contingency plans.

Counter-fire Capabilities

In the event of a conflict, the ability to rapidly destroy North Korean long-range artillery is essential to deterrence. An aggressive counter-fire battle achieves early destruction of one of North Korea's essential military capabilities, while minimizing casualties and protecting Seoul—the Republic of Korea's seat of government and hub of economic power. My vision for the counter-fire fight is two-fold: a proactive capability to destroy North Korean artillery systems before they fire; and an overwhelming response to any North Korean fires into the Republic of Korea. A fully resourced and integrated ground, sea, and air counter-fire capability is essential to achieving this decisive overmatch. Key components of the theater counter-fire system are: state-of-the-art counter-battery radars, precision munitions, operational-level and strategic-level Unmanned Aerial Vehicles, and state-of-the-art Intelligence, Surveillance, and Reconnaissance capabilities. Your support of these programs provides the capabilities needed to destroy the North Korean artillery at the time and place of our choosing while simultaneously protecting Seoul.

Missile Defense

North Korea's theater ballistic missiles can range deeply into the Republic of Korea, and deliver both conventional and chemical weapons on the civilian popu-

lation and military targets. To defeat the North Korean missile threat, I need to increase the number of advanced PATRIOT missiles in the Republic of Korea. Increasing the density of these advanced air defense weapons on the peninsula ensures the needed protection for critical nodes.

Force Protection

Protecting the force remains essential to operational readiness—I will not compromise the safety of our service members and their families. We remain vigilant and have taken critical steps to improve our security posture—most notably increasing perimeter security forces, installation of closed circuit television monitors at key access points, fielding Portal Shield chemical and biological detection systems, and conducting intensive anti-terrorism and force protection training exercises.

Although we continue to assess the terrorist threat as low, we have implemented additional force protection measures and increased our physical security presence to ensure the safety of our people. In addition to our normal security forces, the Korean National Police are integrated into our installation security plans. Their sustained presence adds depth and effectiveness to the security of our key facilities. We have worked closely with the Republic of Korea Ministry of National Defense to increase military security cooperation during times of heightened force protection posture. These prudent measures ensure the Republic of Korea—United States Alliance is prepared to meet any terrorist threat to our installations.

Over the past year, we completed a detailed vulnerability assessment of our installations. This assessment identified over 130 major tasks required to comply with anti-terrorism and force protection requirements, many of which require changes to our infrastructure. Key requirements to improve force protection focus on establishing adequate standoff protection around our key facilities and installations and upgrading structural integrity on mission essential and vulnerable buildings. We have taken prudent measures to mitigate these shortfalls with the available resources. I encourage you to support all force protection related projects.

Logistics and Sustainment

Adequate logistical sustainment is essential to our campaign plans. In Korea, our operations are sustained by a combination of pre-positioned equipment stocks and replenishment from the continental United States. In addition to the precision munitions requirements I've presented, I need your support to correct shortfalls in Army Pre-positioned Set–4 equipment, supplies, and maintenance facilities. These war reserve sustainment stocks are essential to execute operational plans. To ensure timely arrival of additional forces and sustainment supplies, I fully support initiatives to field robust strategic transportation systems like the High Speed Vessel and C–17. Equally important to the Korean Theater is the continued improvement of Joint Logistics Over The Shore equipment, which provides the flexibility to sustain the force against an enemy's anti-access strategies. Improved strategic mobility and robust pre-positioned equipment and supplies ensure sustainment of forward deployed forces and rapid reinforcement from the continental United States.

COMMAND PRIORITIES

As the commander of United Nations Command, Combined Forces Command, and United States Forces Korea, my command priorities are: Ensure Peace and Stability on the Korean Peninsula, Readiness and Training, Strengthen the Republic of Korea-United States Alliance, Transformation of the Command, and Make Korea an Assignment of Choice. I want to elaborate on each of these, identify the key programs and the resources needed to make them a reality.

Ensure Peace and Stability on the Korean Peninsula

Maintaining the Armistice and deterring aggression are the most important missions I have as Commander, United Nations Command, Combined Forces Command, and United States Forces Korea. Readiness to fight and win decisively is critical to these missions. We must also foster broader regional security cooperation to enhance solidarity among our allies and friends. It is essential that the two key elements that deter conflict on the peninsula, the United Nations Command member nations and the Republic of Korea-United States Alliance, continue cooperation to actively promote peace and stability. Our common purpose, steadfast resolve and advanced capabilities are essential to continued stability in Korea.

Readiness and Training

Readiness is my number one priority. Readiness is our ability to deter, and if required, defeat aggression on the Korean peninsula. The proximity of the threat, the complexity of combat in this theater, and high personnel turnover demand intensive,

combined training at all levels. Our year-round combined exercise program, which leverages the results of Joint Forces Command experimentation, provides a great venue to maintain our warfighting proficiency and implement new operational concepts that support transformation.

Combined Forces Command uses the combined exercise program to maintain readiness that is essential to defeat a limited warning attack by North Korea. Our robust annual training program consists of three major exercises: Ulchi-Focus Lens; Reception, Staging, Onward Movement and Integration; and Foal Eagle. Collectively, these exercises train over 400,000 personnel and ensure that the Combined Forces Command Team of active and Reserve component units remains proficient in all warfighting tasks. In Ulchi-Focus Lens 2002, our capstone training exercise, we improved our Common Operational Picture with interactive command and control displays. We used the Common Operational Picture at all command levels to achieve common situational awareness. We also implemented a new collaborative planning and execution system to coordinate theater-level operations. Ulchi-Focus Lens 2002 provided an opportunity to test Integrated Total Asset Visibility and automated language translators.

Our 2003 exercise program focuses on implementing effects based operations. To enhance the exercise program, we are continuing the development of the emerging Northeast Asia Regional Simulation Center to provide simulation support to joint, combined, and bi-lateral exercises. This effort is becoming the preferred venue to resolve difficult coalition integration and doctrinal issues. As this center moves toward its objective state in 2008, it has the potential to support multilateral exercises and simulation with other regional partners and allies. Our 2003 exercise program is essential to maintaining warfighting proficiency and implementing new doctrinal concepts that improve operational effectiveness.

Training Area Encroachment

In addition to simulation training, we must conduct regular live force-on-force training to practice combat tasks and maintain maneuver proficiency. Korea's increasing urbanization encroaches on training areas, restricting our ability to train in Korea. For example, armored and mechanized units cannot maneuver outside of small and discrete pockets of land located in a corridor North of Seoul. Artillery live fire training is limited to two small training areas, which prohibit effective integration of fire and maneuver techniques. We have the same problem with our Air-to-Ground ranges and must continually work to ensure we have the proper separation for adequate aircrew training while maintaining safety for the people who live near the ranges. The Land Partnership Plan provides the mechanism for us to improve our training areas and reduce the effects of encroachment. By 2008 we expect to have the land necessary to create a consolidated Korean Maneuver Training Center. I ask you to fully support this initiative.

Strengthen the Republic of Korea-United States Alliance

For 50 years the Republic of Korea-United States Alliance has been a standard by which all others are judged. To strengthen the Alliance, we need to improve public understanding of United States contributions. It is also essential that we review and re-affirm the military relationship of the Republic of Korea and United States Forces Korea. These complementary efforts will ensure that the Alliance endures well into the future.

To improve the public understanding and appreciation of United Nations Command, Combined Forces Command, and United States Forces Korea, I have implemented a "Good Neighbor" program that encourages closer interaction between our units and the people of the Republic of Korea. This program uses local unit outreach programs such as tutoring English language students in area schools, Arbor Day activities, and sponsoring charitable contributions for orphanages. One of our largest volunteer efforts occurred in the aftermath of Typhoon Rusa in September 2002. United States Forces Korea volunteers assisted with clean-up operations and delivery of humanitarian assistance supplies. These efforts reduced suffering and sped recovery in the affected communities. Community outreach programs develop personal relationships that increase understanding and appreciation for United States Forces Korea.

In addition to these one-on-one programs, I've established new channels of communication with South Korean community leaders, nongovernmental organizations, media representatives and concerned citizens. The Commander's Korea Advisory Council provides a venue for military and community leaders to help with our efforts to positively influence the Alliance. Unit commanders have established hot lines to receive and address issues of concern to the South Korean people. We are also educating local civic leaders about provisions of Status of Forces Agreement,

improved safety programs, and Land Partnership Plan implementation. We are now developing a Korean language web site to provide command information to the South Korean public.

Because of our high annual personnel turnover, Eighth United States Army has instituted a cultural awareness program called "New Horizons Day." New Horizons Day teaches our service members and civilian employees about Korean culture, safety, risk mitigation, and command policies on appropriate off-duty behavior. New Horizons Day reinforces our efforts to improve understanding of the close ties that are the foundation of the Alliance.

We have begun the process of re-defining the Republic of Korea-United States Alliance. In December 2002, Secretary of Defense Rumsfeld and Minister of Defense Lee, Joon agreed to conduct a Future of the Alliance Policy Initiative to guide Alliance transformation. The Future of the Alliance Policy Initiative—jointly led by the United States Office of the Secretary of Defense and Republic of Korea's Ministry of National Defense—will focus on future roles, missions, functions, structure, and stationing in the Alliance; combined transformation and modernization; and the role for the Alliance after reconciliation. These policy discussions will ensure the Alliance has the right balance for the future.

The defense ministers also directed the Republic of Korea-United States Military Committee develop new operational concepts for combined operations. These operational concepts take advantage of new military technologies and lessons from other theaters to implement an effects-based warfighting structure. Using the lessons of Millennium Challenge 02 we will implement the systems needed to make these concepts a reality. We are rapidly revising our contingency plans to achieve rapid decisive maneuver and simultaneous engagement throughout the battlespace. These initiatives increase our ability to defeat the North Korean threat and to transform the command.

Transformation of the Command

We must prepare today to shape the uncertain future in Northeast Asia. My transformation vision is the core of an enhanced Alliance and ensures our ability to provide security throughout the region. As we conduct the Future of the Alliance Policy Initiative with the United States Office of the Secretary of Defense and Republic of Korea's Ministry of National Defense, we will closely examine how to make the command structure more efficient, modernize our capabilities, and develop a future regionally capable combined force that can protect Korea and conduct regional security missions. This vision is achievable in the near to mid-term and we're on the right path to making it reality.

The Land Partnership Program, ratified by the Republic of Korea's National Assembly in November 2002, is a great foundation for transformation. LPP is a plan that returns 50 percent of United States Forces Korea installations to the Republic of Korea government and consolidates United States Forces Korea into 23 centralized installations. What's most important about Land Partnership Plan is its flexibility to accommodate future changes in force structure, command arrangements, and basing. In addition to the Land Partnership Program, we are conducting a combined Republic of Korea-United States Initial Master Plan to reduce United States presence in Seoul. This study will identify the needed facilities and a less intrusive location for our units currently stationed in Seoul.

Make Korea "The Assignment of Choice"

Today, Korea remains the least desirable assignment for all services, largely because of family separation, poor living and working conditions, and financial hardship. Improving housing conditions, re-capitalizing the infrastructure, and correcting the pay disparity will create an "irreversible momentum" in making Korea an assignment of choice.

To reduce family separation in Korea, I want to provide command-sponsored housing for at least 25 percent of our married military members and their families by 2010. We currently provide government owned and leased housing for less than 10 percent of our married service members, far less than the 70 percent in Europe and Japan. I plan to station the vast majority of our families south of the greater Seoul metropolitan area. To accomplish these goals, we must increase our housing and support leasing authorities to 15 years. This will make the programs attractive to South Korean construction companies and create a "build-to-lease" market in the Republic of Korea. With stable Military Construction funding levels, increased leasing authority, and Host Nation Funded Construction under the Land Partnership Program, we can afford this initiative to improve living and working conditions in the Republic of Korea.

With your support, we are continuing to improve accompanied housing with phased renovation of family housing units. In fiscal year 2004, we will start the second phase of a three-phased housing project that will add housing for 111 more families at Osan air base. We began these efforts 2 years ago and we continue to make progress on this important initiative.

Even with your great support to housing last year ($185.3 million), over 40 percent of our unaccompanied service members live in inadequate quarters; many in buildings erected shortly after the end of the Korean War. Because of overcrowding and sub-standard facilities, many unaccompanied personnel must live in dense urban areas outside our installations, creating force protection concerns and requiring our service men and women to pay high out-of-pocket living expenses. We have a plan to provide unaccompanied enlisted service members with quality housing by 2008, as mandated by the Department of Defense. The Air Force Dormitory Master Plan and Army Barracks Upgrade and Buyout Plan allow us to use funds where they are most needed for renovation and new construction. The Fiscal Year 2004 Military Construction program requests three Army dormitory complexes and another Air Force dormitory that will significantly reduce housing deficiencies. Your continued commitment to stable Military Construction will have a major impact on correcting the housing shortage our service men and women endure in Korea.

Deteriorating work facilities impair readiness, reduce the efficiency of uniformed and civilian workers, and lower retention rates of highly qualified and otherwise motivated people. Our facilities and infrastructure are old—over one third of all buildings in the command are between 25 and 50 years old, and one third are classified as temporary buildings. We are working hard to maintain existing permanent facilities through an aggressive Sustainment, Restoration, and Maintenance program funded with Operations and Maintenance accounts.

Environmental stewardship is important to me personally and to the command. Our most immediate environmental concern is the command's aging fuel tanks. We are continuing to work through challenges with environmental protection and mitigation programs. Although there have been improvements in the last 2 years, more needs to be done with environmental project funding in 2004. Environmental requirements have been integrated into military construction and Sustainment, Restoration, and Maintenance funding. These resources will be wisely invested in our enduring installations under the Land Partnership Plan.

The final element of making Korea an assignment of choice lies in correcting the pay disparity between serving in Korea and equally harsh shorter tours in southwest Asia and the Balkans. Our service members are motivated by more than money; however, financial hardship and low morale are clearly linked. An Army Sergeant serving a 6-month tour in Bosnia receives $500 more per month than one of his or her peers serving a 12-month unaccompanied tour in Korea. Additionally, our men and women pay significant out of pocket costs to maintain a second household in Korea, where cost of living expenses exceed those in San Francisco and Frankfurt, without the benefit of a cost of living allowance. We are participating in a Department of Defense study to explore possible solutions such as separate rations, additional hardship duty pay, a cost of living allowance, and distributed incentive pay. We are also exploring other initiatives to reduce financial inequities, such as expanding the Overseas Tour Extension Incentive Plan, implementing Assignment Pay Initiative, and implementing partial Basic Allowance for Housing to compensate for sub standard housing, but we need your support to make these initiatives a reality for our service men and women.

In conclusion, I'd like to leave you with these thoughts:

Northeast Asia is a key region for the United States and our partners. We must maintain our presence in the region to demonstrate our commitment to ensure peace and security in the region. Congressional support is vital to our future in Korea and Northeast Asia. We thank you for all that you've done.

Events in Korea affect the entire world. North Korea's aggressive posture and continued pursuit of weapons of mass destruction pose serious danger to the peace, security, and prosperity of the peninsula and the region. It has substantial military capability and is selling high technology missiles to the highest bidder. North Korea continues to violate its agreements and extort aid from the international community. North Korea's renewed efforts to develop nuclear weapons pose a formidable threat to the world. North Korea is a threat to Northeast Asia and all peace-loving nations. It is a threat that requires a strong Republic of Korea Alliance, a robust forward United States military presence, and an active international domestic effort.

The Republic of Korea-United States Alliance has weathered challenges for over 50 years, and this partnership will continue to endure. Now is the time to transform

this alliance to meet the changing conditions in the region. We need your support to implement our transformation vision.

You can be justifiably proud of all the soldiers, sailors, airmen, marines, and civilians in Korea that serve the American people. Their daily dedication and performance reflect the trust and support that you've placed in them.

Chairman WARNER. Thank you very much, General.

General Hill.

STATEMENT OF GEN. JAMES T. HILL, USA, COMMANDER IN CHIEF, UNITED STATES SOUTHERN COMMAND

General HILL. Mr. Chairman, Senator Levin, distinguished members of the committee: I am honored for this opportunity to appear before you today. I greatly appreciate the support of the committee for the United States Southern Command and the soldiers, sailors, airmen, marines, coast guardsmen, and civilian personnel who I am so privileged to command.

These men and women are performing in an absolutely outstanding manner. I have seen Special Forces trainers in the remote regions of Colombia, Reserve medics exercising their skills by bringing medical attention for the first time to villages in Belize, airmen conducting detection and monitoring missions over the source zone in the Andean region, and sailors and coast guardsmen conducting interdiction operations in the Caribbean.

I am grateful and continually inspired by their selfless dedication and unwavering pride in serving our great country. I have also been inspired by the dedication of Colombian soldiers in their daily fight to defend Colombian democracy against vicious narcoterrorists and in their efforts to rescue three American citizens. The Colombian military has sustained deaths in their continued attempt to rescue these Americans.

Since taking command 7 months ago, I have traveled extensively throughout the region, to include nine visits to Colombia. These visits have provided me important insights to the region, its leaders, the challenges, and, equally important, opportunities that lie before us in Latin America and the Caribbean.

The expectations derived from democratic and free market reforms, seemingly so available at the close of the last century, are not being realized at the dawn of this one. This, along with economic stagnation and endemic corruption, are significantly challenging many of the hemisphere's fledgling democracies.

Latin America and the Caribbean is an increasingly important region to the United States. We have strong and growing economic, strategic, security, and cultural ties to the region. On the negative side, nearly all of the cocaine and much of the heroin consumed in our country comes from this region, significantly contributing to the 19,000 deaths caused by drugs last year.

The threats to security and to stability in the region do not come from warring or antagonistic countries or neighbors. Overall, the countries in Latin America and the Caribbean generally have friendly relations. In fact, it is the least militarized region of the world. The threats instead come from destabilizing and corrupting influences of international terrorism, narcoterrorism, illegal drugs, arms trafficking, and rampant crime.

Although nowhere are these transnational threats more graphically and brutally active than in Colombia, they have pervasively

and corrosively spread throughout all regions of Latin America and the Caribbean. We therefore cannot focus our efforts exclusively on Colombia, and we in Southern Command are not. Fortunately, there is a growing recognition among the region's leaders that the problems emanating from, but not restricted to, Colombia are regional and require a regional solution.

In fact, just yesterday the Andean Ridge countries' foreign ministers and ministers of defense, meeting in Colombia, signed an understanding to increase regional cooperation and information-sharing to coordinate their efforts along their borders to combat narcoterrorists and the flow of drugs. This move toward regional cooperation is a very important one and one that we have been pursuing vigorously.

As I mentioned in my written statement for the record, I am proud to say that the men and women of the United States Southern Command do a great deal to further our Nation's interests in this hemisphere with very few resources and a modest presence. We are, however, at a critical point where the progress in eliminating conflict, reducing tension, and establishing democracy throughout the region could be at risk if we are not steadfast in our efforts. The continued progress as a region of democracy and prosperity is of paramount importance, I believe, to our national security.

I thank you again for this opportunity and I look forward to your questions.

[The prepared statement of General Hill follows:]

PREPARED STATEMENT BY GEN. JAMES T. HILL, USA

Mr. Chairman, Senator Levin, members of the committee, it is a pleasure to appear before you today to present the United States Southern Command's current posture statement. I am honored to have the opportunity to highlight the important contributions the men and women of our command are making to the war on terrorism. These soldiers, sailors, airmen, marines, members of the Coast Guard, and our civilians are working in virtually every nation in the region to promote U.S. national security interests. Their work has done much to preserve stability and strengthen relationships with our allies.

Since taking command 7 months ago, I have traveled extensively throughout the region and have witnessed the mounting challenges facing regional leaders and their people. The expectations derived from popular elections and free market reforms, seemingly so achievable at the close of the last century, are not being realized at the dawn of this one. Economic stagnation, endemic corruption, and unprecedented challenges to sovereignty by international terrorists, narcoterrorists, and drugs, arms, and human trafficking organizations threaten many of the hemisphere's fledgling democracies. Without sustained international support, some of these democracies could collapse, signaling the return of authoritarian regimes that respect neither human rights nor democratic principles. Today, I will outline the United States Southern Command's priorities in the hemisphere and the impact of what we do, or fail to do, on our own national security. The strategic importance of the hemisphere, the war on terrorism, and our interests in Colombia remain central.

IMPORTANCE OF THE REGION

The nations of our hemisphere are largely at peace with each other and have foresworn the development of weapons of mass destruction. Indeed, the regional nuclear non-proliferation Treaty of Tlatlelolco, is one of the most successful in history. Military spending on a per capita basis is lower in Latin America than anywhere else in the world. There are many cultural, economic, and political reasons to suggest that U.S.-Latin relationships should be increasingly important, yet world events keep U.S. security policy focused appropriately in other directions.

The region is the number one source of new Americans as more than 34 million residents in the U.S. are of Latin origin. Latin Americans are the largest and fastest

growing minority group in the country and by 2050 are projected to comprise one quarter of the U.S. population. Their growing numbers are having a profound influence on our society and culture.

Our economic and strategic ties to Latin America and the Caribbean have never been stronger. The region provides over 31 percent of our imported oil, more than all Middle Eastern countries combined. The volatility of the Middle East makes the availability of oil supplies from Latin America and the Caribbean all the more critical. The U.S. conducts more than $360 billion of annual trade with Latin America and the Caribbean, nearly as much as with the entire European Community. By the year 2010, trade with Latin America is expected to exceed that with the European Economic Community and Japan combined. This exchange translates into millions of American jobs and businesses linked to this region. As our recently negotiated Free Trade Agreement with Chile shows, these links will only grow as we progress toward the president's vision of a Free Trade Agreement of the Americas. Latin America is also critical to the global environment as the Amazon Basin produces 20 percent of the world's freshwater runoff and 25 percent of the world's oxygen. Also, 25 percent of United States pharmaceuticals are derived from sources in this same area.

During the past 25 years, Latin American and Caribbean nations have emerged from limited democracies and dictatorial regimes to democracies governed by elected civilian leaders that have increased respect human rights and control their military forces. This transformation is in no small measure a result of Southern Command's ongoing engagement and security cooperation activities. Such activities now include military operations in support of the war on terrorism; counterdrug operations; military training and exercises; and professionalization of the region's militaries emphasizing the role of the military in a democratic society, respect for human rights, and the protection of civil liberties.

The true test of a nation's democracy and military professionalism, however, is how well that nation endures crisis. Many Latin American and Caribbean nations are currently experiencing political, economic, and social crises, and never before have their militaries demonstrated such restraint and support for their elected civilian leadership.

While much is going right in the region, there still is much that is discouraging. Millions of Latin Americans remain mired in poverty, living in urban slums or neglected rural areas with crumbling infrastructure, inadequate sanitation, little access to proper health care, and perhaps most tragically, minimal educational opportunities for their children. Some telling statistics illustrate the magnitude of the economic crisis now facing the region. According to the United Nations Economic Commission on Latin America and Caribbean (ECLAC), 214 million people in the region, 44 percent of the population, live below the poverty level. Seven million people were added to the ranks of the poor in 2002, and 20 percent of the region's population is unable to provide for even their most basic food needs. Developmental assistance and international investment are inhibited by the lack of security in the region. These figures illustrate in very real terms the enormous challenges faced by our democratic allies in the region.

In recent years, economic desperation and volatile social environments in the hemisphere have set the conditions for the proliferation of international terrorism, narcoterrorism, illegal drugs, and arms trafficking. This is the crux of my concern and my responsibility. Unless and until Latin American and Caribbean governments can provide both security and stability and a reasonable opportunity for positive change in the lives of their citizens, these activities will continue to fester and grow and the foundations of democracy could crumble under the weight of these transnational threats.

THREATS

Terrorism in the Region

The war on terrorism is our number one priority. The events of September 11, 2001, provided a cruel and graphic illustration of the evils of terrorists and their ability to attack at a time and place of their choosing. The recent El Nogal nightclub bombing in Bogotá, Colombia, in which at least 35 people were killed and 173 wounded is just one example of the incessant terrorist attacks in that country. Last year's bombing outside the U.S. Embassy in Peru by the Shining Path is an indication that terrorist groups in the region are deliberately targeting U.S. citizens and interests. Economic deprivation, political instability, rampant corruption, drug trafficking, and paralyzed judicial systems are breeding grounds for terrorists and coupled with Latin America's proximity to the U.S., increase our vulnerability to attack from the southern approaches to our homeland.

To complement Homeland Security efforts and seal the seams through which terrorists infiltrate, we must take comprehensive measures in our region to combat international terrorism. To effectively prosecute the war on terrorism, we must have the authority to use our assets and subordinate commands to assist partner nations interdict those illicit activities that support terrorists throughout our area of responsibility. To strengthen capabilities, build coalitions, and ensure our allies can effectively defeat terrorist activities within their borders, we must continue to provide partner nation security forces with equipment and continue to train with them in bilateral and multilateral exercises. Promoting security and effective border defense in every nation of our area of responsibility denies terrorists operating locations, support structures, freedom of movement, and the financial underpinnings from drug trafficking for their destructive activities.

International terrorists and narcoterrorists, fueled by drug and arms traffickers, menace our region. While the primary front in the war on terrorism currently lies elsewhere, Southern Command plays an important supporting role. Radical Islamic groups operating out of the region use the profits from drug, human, and arms trafficking, false documentation, and other illicit activities in our hemisphere to fund their worldwide operations. The narcoterrorist organizations operating primarily out of Colombia are spreading their reach throughout the region, wreaking havoc, and destabilizing legitimate governments. It is these organizational networks that remain our focus.

Middle Eastern based terrorist groups to include Hamas, Hizballah and Islamiyya al Gammat have networks and support structures throughout the region. These cells, extending from South America through Central America and the Caribbean, consist not only of logistics and support personnel, but also of terrorists who have participated in attacks in the Middle East. Radical Islamic supporters have long gathered in areas such as the Tri-border region between Paraguay, Brazil, and Argentina, known for its deep links to a full range of transnational criminal activities. Similarly, we continue to be concerned by possible activities of radical Islamic groups on Margarita Island in Venezuela and Maicao, Colombia. Precise estimates of the amount of money diverted from the region to radical Islamic groups are difficult to determine due to the illicit nature of the activity, however, the figures are likely in the hundreds of millions of dollars annually.

In the Tri-border area, a raid in the fall of 2001, on the business of a local Hizballah leader revealed terrorist training videos and audiotapes extolling the virtues of Jihad. He admitted having ties to businesses in Miami, New York, Chile, Brazil, and Paraguay—leaving open the question of his involvement in terrorist efforts to penetrate the United States or pass money to terrorist groups.

Last year, Paraguay arrested and tried several important Islamic radicals. Hizballah financial chief, Sohbi Fayad, was convicted on charges of tax evasion and local extremist, Ali Dahrough, is awaiting trial. Paraguay awaits the extradition of Hizballah Tri-border chief, Assad Barakat, from Brazil to face similar charges. These actions against convicted and alleged terrorists, and those who support them, produce important disruptions of terrorists' networks.

Similar efforts are needed throughout the region to neutralize the Islamic radical structure while upholding the rights of law-abiding Muslims. Building coalitions, training, equipping forces, and improving capabilities will enable allies to significantly reduce their ungoverned spaces and gain greater control of their borders. These efforts produce skills, which are tested in U.S. sponsored multilateral exercises that promote security, improve effective border control, deny terrorists safe havens, and restrict their ability to operate.

Narcoterrorism is most pervasive in Colombia where citizens suffer daily from murder, bombings, kidnappings, and lawlessness. However, narcoterrorism is spreading increasingly throughout the region. Narcoterrorist groups are involved in kidnappings in Panama, Venezuela, Ecuador and Paraguay. They smuggle weapons and drugs in Brazil, Suriname, Guyana, Mexico, and Peru, are making inroads in Bolivia, and use the same routes and infrastructure for drugs, arms, illegal aliens and other illicit activities. The narcoterrorists are very well financed by their involvement in every aspect of drug cultivation and production, kidnapping, and extortion. These drug-fueled terrorist groups with their ideologically appealing names—the Revolutionary Armed Forces of Colombia or FARC, the National Liberation Army or ELN, and the United Defense Forces or AUC—directly attack the legitimate authority of the Colombian government. Ideology is no longer the moving force it once was for these organizations. Today, they are motivated by money, and power, and protecting, and sustaining themselves through drug trafficking and terror. The arrest last year in Houston, Texas of an AUC operative arranging an exchange of $25 million worth of drugs for arms is a clear indication of the symbiotic relation-

ship among terrorists, drugs, and arms traffickers. The re-emergence of the Shining Path in Peru is being fueled by their involvement in the drug trade.

Narcoterrorism also negatively impacts the environment. Over 4 million hectares of rain forest have been destroyed in order to plant coca. Forty eight thousand metric tons of precursor chemicals used in coca production per year, are dumped into the environment. Terrorist pipeline attacks have spilled 3 million gallons of oil, the equivalent of 12 Exxon Valdez's.

Drug Trafficking

Underlying all of this is the illegal drug industry—a scourge that constantly threatens the sovereignty, stability, and rule of law in Latin America and the Caribbean. Drug traffickers generate violence, foster crime, fuel gangs, and corrupt public institutions. The Drug Enforcement Administration believes that a substantial number of foreign terrorist organizations are trafficking in large amounts of narcotics—six of these organizations are operating in this hemisphere. In addition to all three of the Colombian terrorist groups, the Shining Path, Jama'at Al Musilmeen, and Hizballah generate revenues through the drug trafficking business.

According to the Office of the National Drug Control Policy (ONDCP), over 19,000 Americans die annually from drug-induced causes. This constitutes, in my mind, a weapon of mass destruction. If we define national security as the safety and well being of our citizenry, illegal drugs must be considered a major national security concern.

Narcotrafficking not only threatens the security of the United States, but also the survival of democratic allies in the region through unabated violence, terror, and corruption, while forcing these countries to devote precious resources to address these problems. Additionally, as traffickers exchange drugs for arms and services in the transit countries, transit nations become drug consumers as well. Brazil provides an illustration of how such an evolution can occur; it is now the second largest consumer of cocaine in the world behind the United States. While partner nations are willing to work with us to develop regional approaches to counter the production and trafficking of illegal drugs, effective and sustainable counterdrug operations severely test the capabilities of their thinly stretched security forces.

Arms Trafficking

A nearly unchecked flow of illegal arms throughout the region poses another serious threat to the security of several nations and exacerbates terrorist violence throughout the region. Many of these arms are leftover from the region's civil wars, while others are from former Soviet bloc countries or even purchased legally in the United States. They are then shipped through the region's porous borders destined to the terrorist organizations in Colombia or gangs elsewhere, often in exchange for drugs. Arms traffickers use a variety of land, maritime, and air routes that often mirror drug and human trafficking routes.

REGIONAL ASSESSMENTS

Andean Region

Colombians suffer daily from a level of violence and terror practically unimaginable to us. In this war-torn country, a decades-old conflict waged by narcoterrorists and fueled by illicit drug money continues unabated, claiming thousands of lives. More than 1.5 million Colombians have been displaced from their homes by war, terror, and violence. Last year there were more terrorist attacks in Colombia—an average of four per day—than in all other nations of the world combined. Colombia has the highest homicide rate in the world. Last year more than 28,000 Colombians were murdered—13 times the U.S. rate—making homicide the most likely cause of death. More than 2,900 Colombians were kidnapped, also the highest rate in the world. Violence has become so endemic that a Colombian company now specializes in bulletproof vests for children.

Many familiar with Colombia's conflict romantically describe the illegal groups as "revolutionaries," "guerrillas," or "rebels." These terms are inaccurate and out of date. The FARC, ELN, and AUC, directly challenge the legitimate authority of the Colombian Government, yet offer no alternative form of government. Simply put, these are narcoterrorists who profit at the expense of Colombia and its people.

All three of these groups target elected government officials and the civilian population with their brutal attacks. International human rights groups have publicly denounced the massacres, assassinations, political kidnappings, forced displacements, and forced recruitment of minors by all three groups. Human rights groups have also denounced the FARC's use of illegal weapons to attack protected sites and civilian institutions such as the May 2002 battle between the FARC and AUC, in which a FARC mortar fell attack on a church in Bojayá, killing more than 100 peo-

ple, many of them children. The FARC's latest innovation of forcing kidnapped individuals to drive bomb-laden cars on suicide missions represents yet another step in the downward spiral toward the terrorists' total disregard for the sanctity of human life. Attempting to protect Colombians from this lawlessness is a paralyzed judicial system in which 97 percent of crimes go unpunished and three million cases remain backlogged.

In the face of these enormous challenges, President Álvaro Uribe is vigorously proceeding with changes to reform the nation's political and legal systems, promote socio-economic development, protect human rights, provide help to displaced persons, enlarge and professionalize the security forces, and combat narcoterrorism. I have traveled to Colombia nine times and am impressed by President Uribe and his strong and principled team's determination to defeat the forces that are ripping his country apart.

President Uribe's initiatives are solidly supported by internal control and legislative measures designed to hold military members responsible for their own actions. Education and training initiatives, including human rights training implemented by the Colombian Ministry of Defense, have produced some of the best-trained and most professional military personnel in Colombia's history. Allegations of human rights violations by the military have dropped to less than 2 percent of all allegations, and today the Colombian military is one of the most respected organizations in the nation.

Colombia remains the world's leading producer of cocaine and accounts for 90 percent of the U.S. supply. Furthermore, we are seeing a surge in poppy cultivation and heroin production in Colombia. While Colombia's heroin production is a modest eight metric tons per year, virtually all of it is smuggled into the U.S.

Although it has the political will to fight drug traffickers, Ecuador remains a significant transshipment country for illicit drugs and is the country most vulnerable to spillover from Colombia. Economic limitations and security concerns hamper Ecuador's ability to strengthen border control operations. Ecuador is host to one of the Southern Command's Forward Operating Locations (FOL) in Manta. The FOL has proven to be an effective launch site and critical element in our source zone counterdrug operations. This FOL provides coverage in the eastern Pacific where we have seen the greatest increase in drug smuggling activity. Runway improvement, construction of living quarters, and maintenance facility projects were completed in 2002. Continued infrastructure improvement will ensure the airfield meets U.S. operations and safety standards. Manta's substantial contributions to counterdrug efforts will become even more valuable with the resumption of the Air Bridge Denial Program in Colombia. The effectiveness of the Air Bridge Denial Program is unquestionable. The incorporation of additional safety measures will facilitate the resumption of this program, which will improve our ability to assist Colombia in its efforts to interdict the flow of illegal drugs.

Venezuela continues to deteriorate with its declining per capita income, financial crisis, increased instability, violence, and crime. Despite this political and societal crisis, the U.S.-Venezuelan military contacts continue with Venezuelan military students attending U.S. schools. We have a longstanding institutional relationship with the Venezuelan military and will continue to pursue common security concerns, as long as the military remains within its constitutional authority.

Caribbean

In the Caribbean the primary challenge comes from narcotrafficking and the corruption that accompanies it. With the exception of Haiti, democratic institutions remain relatively stable but the police and security forces are often overwhelmed or outgunned by the resources of drug traffickers and others engaging in illicit activity. The significant economic slowdown in the Caribbean provides a fertile environment for the corruption of government and security personnel as well as the proliferation of drug trafficking and other illicit activities. To meet these challenges regional governments are attempting to focus on cooperative efforts such as the Regional Security System (RSS) and CARICOM. There is a growing understanding among Caribbean leaders that leveraging each other's limited resources is the only way to deal with the threats they face. Our efforts are focused on supporting these cooperative approaches.

Haiti stands out in the area of responsibility for its total political and economic paralysis. The government has refused to implement both the economic and political reforms essential for garnering vital support from the international community. Without fundamental changes in both the political and economic sphere, Haiti will continue to stagnate.

A key element of our efforts in the Caribbean is the uniquely focused Tradewinds exercise. Conducted annually, Tradewinds exercise objectives focus on combating

transnational threats, counter drug operations, and disaster preparedness. This year's exercise will consist of two phases hosted respectively by Jamaica and Barbados.

Central America

We are at a unique point in time in Central America, with most of the region's political and military leaders dedicated to overcoming historical border differences and tensions in order to pursue regional economic and military integration. Southern Command has a long history of providing security cooperation to Central American nations with a regional focus on disaster response, humanitarian and civic assistance, demining, peacekeeping, and counterdrug operations. Arms trafficking, originating with arms left over from the civil wars of the 1980s not only threaten this region but flow southward to Colombia. This region is also a primary avenue for illegal migrants and drugs entering the United States. Especially troublesome is the situation in Guatemala. The administration has proven to be an unreliable partner in countering drug trafficking and according to the Inter-American Commission on Human Rights, there were more than 100 attacks against human rights workers in Guatemala last year.

Central America is therefore key to our counterdrug and counter terrorist efforts, which include regional operations to strengthen capabilities and foster cooperation within nations of the region. We are working more closely with the Organization of Central American Armed Forces (CFAC) to promote military integration and cooperation in maintaining regional security. El Salvador provides Southern Command the use of Comalapa Airport as a Forward Operating Location for counterdrug coverage throughout Central America, the eastern Pacific, and the western Caribbean. Joint Task Force Bravo in Honduras continues to provide a logistical support base to the critical humanitarian missions of the region, as well as counterdrug operations through support of Central Skies exercises.

Southern Cone

Military-to-military engagement in the Southern Cone remains strong. Argentina remains in the grip of economic crisis. Recent estimates indicate that 19 million, or 53 percent of Argentines are living below the poverty line. In the midst of this crisis, the Argentine military remains a strong partner for the U.S. in the region and has carved out a useful role in U.N. peacekeeping operations and support for the war on terrorism. Argentine military leaders strongly support democracy and the constitution and serve as a voice of restraint and respect for the democratic process. Southern Command continues its military-to-military contact program with the Argentinean Armed Forces and expects this sustained cooperation will continue in the future.

Crime in Brazil, especially urban gang violence, remains a serious problem, and President "Lula" da Silva faces challenges from illicit drug and arms traffickers. Thus far, cooperation with the new Brazilian administration and the Brazilian military continues seamlessly.

Despite regional economic difficulties, Chile's economy remains on firm footing and offers appreciated stability in the Southern Cone. Transparency International rates Chile as one of the least corrupt nations in the world. The United States has recognized this by concluding a Free Trade Agreement with Chile, the first nation in the region after Mexico. We look forward to a growing and cooperative relationship with Chile and its armed forces.

WAR ON TERRORISM

As mentioned earlier, terrorists throughout the region bomb, murder, kidnap, traffic drugs, and smuggle arms among other illicit activities. Southern Command trains, equips and builds allied nation capabilities to confront terrorists, control borders, deny safe havens, and prevent terrorists from operating with impunity. Interagency cooperation, improving Colombian military capabilities, conducting detention operations, the use of expanded authority, and security cooperation are among the tools we employ. With the inextricable link between terrorists, drugs, and arms trafficking, counterdrug and arms interdiction operations are critical to our efforts. Joint Interagency Task Force-East (JIATF–E) is integral to our operations.

Inter Agency Cooperation

JIATF-East began as an interagency coordinator of maritime counterdrug operations in the transit zone. Today, after merging with JIATF–S, collocating in Key West, Florida, assuming responsibility for the source zone, and adding international members to their staff, JIATF-East provides planning assistance for counterdrug operations in response to U.S. country teams throughout the region. Transit zone oper-

ations may or may not involve U.S. forces, but our forces do participate in planning operations supported by the U.S.

Responding to Secretary Rumsfeld's guidance to participate in a Joint Interagency Coordination Group, Southern Command meets monthly to focus on the war on terrorism with representatives from the Department of Treasury, Drug Enforcement Agency, Department of State, Department of Homeland Security, and Department of Defense. The Joint Interagency Coordination Group is also a venue for sharing intelligence and effectively coordinating our regional counterterrorism efforts.

Andean Counterdrug Initiative

The Andean Counterdrug Initiative, a complement to Plan Colombia, concentrates on the region rather than on Colombia alone. Success in Colombia could produce a spillover into neighboring countries that may not be prepared to deal with the consequences. These countries remain transshipment points for arms, drugs, and precursor chemicals entering and exiting Colombia. While success in Colombia is essential, we cannot risk winning the battle in Colombia and losing the war in the region. The Andean Counterdrug Initiative is intended to contain the effects of spillover and, to a lesser degree, sustain the success of Plan Colombia.

Improving Colombia's Military Capabilities

Southern Command assistance programs are intended to help Colombia develop the capabilities to solve their security problems and diminish the U.S. in-theatre role. Military training of Colombian units that are vetted for human rights abuses is key to realizing success on the battlefield. The training of the Counter Narcotics Brigade and the establishment and training of a Commando Battalion to pursue enemy leadership have already produced results.

U.S. Special Forces have also been training Colombian Armed Forces in Arauca as part of an infrastructure security strategy to protect a portion of the 772-kilometer pipeline and other critical infrastructure points, that have been frequent targets of terrorist attacks. This training will enable Colombia to protect remote narcoterrorist influenced areas of the countryside where the pipeline is located. The oil carried by the pipeline represents annual revenues of about $500 million for the Colombian Government. The loss of this revenue seriously undermines Colombia's fiscal health and the attacks create considerable environmental and ecological damage.

Detention Operations

In addition to its work in Central and South America, Southern Command has directly and actively supported the war on terrorism by establishing a terrorist detention and intelligence operations facility at Guantanamo Bay, Cuba, in January 2002. Intelligence operations at Guantanamo have provided critical information regarding terrorist organizations' leadership, planned attacks, potential attacks, and other specific information that has already thwarted terrorist activities. As Guantanamo operations continue, we will improve intelligence exploitation, collection and dissemination, and establish more permanent facilities to provide servicemembers a better quality of life.

We combined Joint Task Force 160 and 170 to form Joint Task Force Guantanamo, achieving unity of command and ensuring improved coordination between the intelligence collection mission and camp operations. Detainees continue to receive medical care, three meals daily that meet Muslim dietary laws, clothing, permanent shelter, showers, and humane treatment consistent with the provisions of the Geneva Convention.

Expanded Authority

The Supplemental Appropriations Act of 2002 and the Fiscal Year 2003 Defense Appropriations Act included provisions to use counterdrug assets for non-counterdrug missions within these respective years. The granting of expanded authority for operations was an important recognition that it is impossible to separate the drug threat from the threat to security and stability raised by terrorist organizations such as the FARC, ELN, and AUC. Operations are more efficient and effective because the same assets are used to confront terrorists as well as drug traffickers. We can now share more intelligence with Colombia, and they can use counterdrug-funded assets in the combined campaign against terrorists and drug production and trafficking. A great example of success as a result of expanded authority is the killing of the FARC's 15th Front Commander by the Colombian military utilizing U.S. provided UH–1 helicopters flown by Colombian pilots.

Security Cooperation

Southern Command's security cooperation activities expand United States influence, assure friends, and dissuade potential adversaries. The overarching goals are to promote regional security and stability through training, equipping, and developing allied security force capabilities that improve competence and professionalism while underscoring respect for human rights.

Command programs are also intended to strengthen respect for the rule of law, civilian control of the military, and support for democratic ideals. We do this not only because it is in tune with the highest values of the American people, but also because it is a strategic, operational, and tactical necessity. Security forces must enjoy the trust and confidence of their people before they can be effective. Only by respecting the law and the dignity of all the citizens they are sworn to defend, can security forces hope to gain the respect of those they protect.

We annually coordinate and direct more than 30 legal engagement activities among military counterparts, regional governments, and non-government organizations. Specific accomplishments include the creation of a legal corps, reform of military justice codes and procedures, human rights and law of war education, and the inclusion of military lawyers in the planning and execution of military operations. Nowhere are the positive results of these efforts more apparent than in Colombia where the people now hold their military in high esteem.

Complementing this training are disaster relief programs that teach militaries how to respond to their civilian authorities when disasters occur. Fuerzas Aliadas is the cornerstone of this program and will be hosted by Nicaragua this year. More than 20 nations will participate, including our regional partners, Canada, the United Kingdom, the Netherlands, and France.

Beyond disaster relief, New Horizons exercises provide unique and rigorous training opportunities to engineer, medical, and civil affairs units. These activities hone U.S. forces' engineering and medical skills in a challenging environment, under conditions nearly impossible to replicate in the U.S.

Last year the New Horizon exercises completed 33 engineer projects consisting of schools, medical clinics, wells, and rudimentary road construction and repair. The 59 humanitarian medical deployments treated more than 680,000 patients. During these deployments, our veterinary teams treated approximately 67,000 animals in varying livestock categories, which contributed significantly to sustaining local economic health. Bolivia, Panama, Belize, Dominican Republic, Grenada, and St. Kitts will host New Horizons exercises this year.

The annual naval exercise, UNITAS, is conducted throughout the region with significant participation by several countries. This year, Ecuador will host the UNITAS Pacific Phase. Argentina is scheduled to host UNITAS Cruise 2004 Atlantic Phase in October. An amphibious bilateral exercise between the U.S. and Argentina is scheduled for September. Colombia, Ecuador, and Peru will each conduct a bi-lateral amphibious exercise with participating U.S. forces.

This year the Central American nations will host several exercises to include Peacekeeping Operation (PKO) North that will focus on enhancing the peacekeeping skills and capabilities of the 22 participating nations. All the Central American countries and the majority of Caribbean nations will participate. We will also conduct PKO SOUTH and Cabanas to strengthen the peacekeeping skills, cooperation, and capabilities of the rest of the region's military forces.

REQUIREMENTS

As the war on terrorism progresses we will increasingly pursue operations of mutual interest with goals that increase interoperability with our allies. We will pool our resources to the extent possible, but we foresee additional threats to U.S. security interests that may require additional resources or the reprioritization of programmed funds, if circumstances warrant. We anticipate Guantanamo's operating tempo to increase, additional stress on our theater communications architecture, an escalation of detection and monitoring activities, and a greater need for interoperability of allied nations that will require Foreign Military Financing programs and a renewal of the expanded authorities.

Joint Task Force—Guantanamo

Long-term operational requirements for JTF-Guantanamo detainee operations are necessary to enhance our effectiveness in the war on terrorism, but as we continue to improve our mission capabilities there will be a cost associated with the progress. Since January 2002, Guantanamo has provided, and continues to provide, critical intelligence information on worldwide terrorist organizations' leadership, planned attacks, potential targets, and other critical information that can thwart subversive

activities. We anticipate the arrival of additional detainees to be secured, screened, held, managed, and interrogated for both counterterrorist planning and law enforcement purposes. Manpower requirements will also increase to ensure a safe and secure facility.

Command, Control, Communications, and Computers (C^4)

My next priority deals with enhancing our C^4 architecture for fixed and mobile operations throughout the region as outlined in previous testimonies. The current C^4 infrastructure lacks the flexibility to execute the assigned mission due to over reliance on inadequate commercial communications systems, limited communications bandwidth, and fragmented operations and maintenance support. Consequently, Southern Command is unable to effectively and efficiently support a counterdrug mission simultaneously with another contingency operation such as anti-terrorism, noncombatant evacuation, migrant operations, disaster relief, or defense of the Panama Canal.

Since existing military systems alone are insufficient, it is my intention to transform, expand, and maintain a cost-effective, efficient, centrally managed, and robust infrastructure that supports the Theater Security Cooperation Strategy. This strategy includes counter-terrorism operations, regional engagement, crisis response, and counterdrug missions. We are partnering with the Defense Information Systems Agency and the Department of State's Diplomatic Telecommunications Service Program Office to explore commercial alternatives such as fiber optic communication links. This effort shows promise for improving C^4 effectiveness throughout the region.

Detection and Monitoring

We conduct varied and diverse detection and monitoring (D&M) operations that require a high state of readiness and a joint effort to link multi-intelligence collectors targeted against strategic, operational, and tactical requirements. This melding of organic and national collection resources will improve operations and fulfill the Quarterly Defense Review Transformation requirement for continuous and persistent Intelligence, Surveillance and Reconnaissance (ISR).

Southern Command's role in Operation Enduring Freedom includes the employment of national, airborne, ground, and maritime ISR assets that are targeted against regional terrorist groups and transnational support cells. Their combined products create a common operating picture of regional activity that can be shared with our allies as appropriate. Successful D&M operations contribute to allied nations' defenses against terrorism and promote regional security cooperation.

Detection and monitoring has eight major programs that are vital to our counterdrug campaign plan. These programs include Relocatable Over the Horizon Radar (ROTHR), Fleet Support Operations, Maritime Patrol Aircraft (MPA), FOLs, JIATF-East, Joint Surveillance and Reconnaissance Operations Center (JSSROC), Hemispheric Radar System (HRS), and South Air Force Support. These programs, when sufficiently funded, will provide a formidable capability to detect and monitor illicit trafficking of arms, drugs and other illegal activities that fuel terrorist groups. Overall, this capability further provides critical information used by the U.S. and host nations to effectively counter the expansion of narcoterrorism.

Foreign Military Financing (FMF)

Foreign Military Financing fosters cooperative security arrangements, and regional initiatives rely on partner nation participation. Many nations rely, in turn, on FMF to sustain the kind of readiness that effective partnering requires. Latin American and Caribbean militaries still have legitimate defense sustainment and modernization requirements. As we request more partner nation assistance in fighting terrorism and transnational threats, FMF will be an important source of their equipping and training efforts. Regional militaries require force modernization to be interoperable. Without FMF support and adequate national funding, training, and maintenance, equipment in Latin American forces continues to deteriorate, which degrades allied military readiness, increases the cost of U.S. participation, reduces the capability of our hemispheric partners in the war on terrorism, and makes military responses to natural disasters and humanitarian relief more difficult.

Expanded Authority

As previously mentioned, operations today are more efficient and effective because the same assets are used to confront both drug traffickers and terrorists, thanks to the expanded authority. The authority also permits greater intelligence sharing and allows allied nations to use U.S. counterdrug funded equipment for non-counterdrug missions. Expanded authority is essential to the command's ability to deal with both narcotraffickers and terrorists. The authorities granted in fiscal year 2002 and fiscal

year 2003 were 1-year programs confined to Colombia. Because of the successes we have experienced in both intelligence sharing and improving operations, we are requesting expanded authority for the entire area of responsibility in fiscal year 2004.

CONCLUSION

Without question, democracy has gained a foothold in Latin America. The question is how long will it prevail? Until ordinary citizens benefit from free market reforms and reduced corruption and until terrorists can no longer operate with relative impunity, that question will linger. For most nations in our area of responsibility, the threats come from within. It will be up to those nations to demonstrate their ability to govern; to provide law and order, implement judicial reform, and develop a profound respect for human rights. These fundamentals provide the stable and secure environment necessary for economic growth—growth that will improve the quality of life for ordinary citizens. Southern Command will play a crucial role in developing the kinds of security forces that help provide the ability to govern throughout the region, and particularly in Colombia.

We are at a critical time in Colombia's history. The elected government of President Uribe enjoys unparalleled approval ratings of about 70 percent. Under his leadership, the Army is helping to regain control of urban neighborhoods long since held by narcoterrorists. Colombia's citizens are taking a more active role in their nation's defense, providing actionable intelligence to the Colombian Armed Forces. President Uribe has raised taxes to provide greater resources to his nation's security forces. There is a renewed sense of momentum, commitment, and hope as the Colombian people struggle to save their country, but there is also a small window of opportunity beyond which public opinion and support will wane without significant progress.

I would like to close by leaving the committee with this thought. I am proud to say we do a great deal to further our Nation's interests in this hemisphere with very few resources and a modest presence. Beyond Colombia, we are at a critical point where the progress in eliminating conflict, reducing tension, and establishing democracy throughout the region could be at risk if we are not steadfast in our efforts. While our attention is drawn to another region of the world, we must keep in mind that we live in this hemisphere, and its continued progress as a region of democracy and prosperity is of paramount importance to our national security.

I would like to thank the Chairman and the members of the committee for this great opportunity and for the tremendous support you have provided this command. I can assure you that the men and women of the United States Southern Command appreciate all that you do for them as they perform their noble work for our great country.

Chairman WARNER. Thank you very much.

The committee will proceed with a 6-minute round of questions. I will lead off, followed by Senator Levin.

The press reports this morning that the United States has announced spy flights over North Korea will resume amid warnings that Pyongyang's nuclear program is much more advanced than previously thought. Assistant Secretary of State James Kelly said North Korea could have enough weapons-grade material within months, not years, to produce nuclear weapons.

Let us talk about that, and I think that responsibility is shared by two of our distinguished witnesses this morning. Let us first address the resumption of the flights, and also it is my understanding they will not be accompanied by such protective aircraft initially as could be available. Admiral Fargo, that would be in your jurisdiction, shared with General LaPorte. Why don't you lead off, Admiral.

Admiral FARGO. Yes, sir, Mr. Chairman, that is in my jurisdiction and those press accounts this morning were accurate. I cannot go into the exact form and substance of those flights, but of course we retain our right to fly these unarmed surveillance and reconnaissance flights in international air space, as we do throughout the world.

So those flights have recommenced. I do not think I can add much more to that without getting into classified material on the tactics of that.

Chairman WARNER. We can understand that. But I presume the most prudent and reasonable precautions are on hand to protect that plane if necessary; is that correct?

Admiral FARGO. Mr. Chairman, obviously we took a very close look at this and did a full assessment and a complete analysis, and we have put in place what I consider to be the prudent measures to ensure that these planes are properly——

Chairman WARNER. That is all we need to know for the moment.

Now, your own professional assessment with regard to the nuclear program that has been initiated once again by North Korea and the dangers it poses to this country?

Admiral FARGO. Yes, sir. I think this nuclear program has dangers on any number of levels. Obviously we are very concerned and all of our regional allies are very concerned about nuclearizing the Korean Peninsula. Certainly there are a couple ways they can do that, through the highly enriched uranium program or through reprocessing spent fuel rods. The concerns are both in the neighborhood of the ability of North Korea to have an arsenal of nuclear weapons and an equal, maybe even a greater, concern is that they could take this weapons-grade material and proliferate it and proliferate it to——

Chairman WARNER. Ship it to other areas of the world.

Admiral FARGO. Ship it to other areas of the world and to terrorist organizations, and of course that is a very serious situation that is international in its context.

Chairman WARNER. Well, given the seriousness of that, I am going to pick up on your phrase, of concern to the regional allies. That would be Russia, China, Japan, South Korea. Thus far, our efforts diplomatically—and I commend the President and others for conducting this diplomacy—to try and bring about a resolution of this problem. But thus far our allies have not expressed the willingness that I feel measures up to your observation that they are concerned, to participate in multilateral talks prior to any bilaterals that may eventually be decided upon between the United States and North Korea. Your views on that?

Admiral FARGO. Well, I think, Mr. Chairman, on a military-to-military level, which is really my lane here, we are conducting very close cooperation with the Japanese and the Republic of Korea on this issue. I have had exchanges, very candid discussions with Admiral Ishikawa in Japan. I am sure General LaPorte has had similar discussions with his counterpart, and we are working very closely on this issue together.

Chairman WARNER. Well, let us hope it works out diplomatically, and I think the President is quite right to try and approach this from a multilateral standpoint, because Russia, Japan, China, and South Korea all have very severe interests in this thing being resolved so that that is not a nuclear peninsula.

General LaPorte, your professional views on this?

General LAPORTE. In terms of the reconnaissance flights, I support Admiral Fargo in providing him some assets to enable him to accomplish that mission. So we are fully in agreement on the exe-

cution of these missions and the manner in which he has designed them.

In terms of the nuclear issue, Mr. Chairman, I want to underscore the significant threat North Korea presents in terms of proliferation. North Korea's economy is a failed economy and they gain hard currency in order to keep their regime in power by engaging in activities such as proliferation of military hardware, and missiles that we all know about.

They are also very much involved in the narcotics business, methamphetamines especially. In Japan alone, it is estimated that it is a $9 billion-a-year business. They are also involved in counterfeiting and also dealing in endangered species. So that should underscore the fact that if they had weapons-grade plutonium they would be willing to sell that also for the right price. That is very important.

In terms of my contact in Korea, I will tell you that the military is very concerned about the nuclear issue. I meet periodically with the Republic of Korea Chairman of the Joint Chiefs of Staff, General Lee, and he joins us in our concern and our desires.

Chairman WARNER. Let me ask specifically, are each of our commanders before us this morning satisfied that you have the forces you need to support the range of contingencies that could arise in connection with this developing situation? Primarily those forces are there for deterrence, but should some measure of engagement be required, Admiral, do you have sufficient forces?

Admiral FARGO. Mr. Chairman, I am better postured today in the western Pacific than I was a year ago. We are fortunate at this point in time that we have an annual exercise that takes place on the Korean Peninsula, Foal Eagle, or Reception, Staging, Onward Movement and Integration (RSO&I), that brings additional troops and aircraft to the Peninsula. This has been on the books for a year. We do it every year, so it is not provocative.

Chairman WARNER. Your answer is yes and, even though our country is heavily engaged, as it should be, in supporting diplomacy in the Iraq situation and that diplomacy is supported directly as a consequence of the forces that we forward-deploy in that region, you are confident that there has been no deterioration in your deterrent capability and reaction capability?

Admiral FARGO. Yes, sir, I am confident.

Chairman WARNER. General?

General LAPORTE. Senator, I am also confident that I have the ability to deter and have contingencies if required. We have increased our intelligence, surveillance, and reconnaissance capabilities so that we have good indications of warning of any North Korean activity.

Chairman WARNER. That capability extends to chemical and biological protection for our troops? I ask both commanders, you have adequate protection should that weapon be utilized?

General LAPORTE. Yes, sir, we do.

Chairman WARNER. Admiral?

Admiral FARGO. Yes, sir.

Chairman WARNER. Fine. Thank you.

My time is up. Senator Levin.

Senator LEVIN. Thank you, Mr. Chairman.

Admiral Fargo and General LaPorte, back to this reconnaissance plane incident. The Washington Post carried a story on it in its March 4 edition, which said that "Defense officials stated that 'at least one of the North Korean planes directed its radars to identify the U.S. aircraft as a target and may have locked on, a step short of shooting a missile.'"

That is the quote that I want to ask you about from the Post. There is a quote from the New York Times on March 8 that said that North Korean jets "'were trying to force the U.S. aircraft to land in North Korea and seize its crew,' according to a senior Defense official."

Admiral, would you first comment on those two quotes?

Admiral FARGO. Yes, sir. Senator, as you would imagine, we have gone back and done a pretty thorough analysis of the intercept, including the tapes and debriefing the pilots. It is clear that the North Korean acquisition radar has a couple of different modes. I would not characterize this as lock-on. The radar was in its acquisition mode, but had not shifted to its fire control mode. So I think that is the answer to the first question.

The second question: We do not know exactly what the North Koreans were trying to do. I have looked at the videotapes myself. They may very well have been signaling for the plane to go down.

Chairman WARNER. Excuse me. Those were hand signals vice electronic?

Admiral FARGO. Those were hand signals, and there were no voice coms with the plane.

Chairman WARNER. I think that should be made clear.

Admiral FARGO. Yes, sir.

Senator LEVIN. In your judgment did the North Korean jet or jets try to force the aircraft to land in North Korea?

Admiral FARGO. In my judgment, this was a provocation on their part. I cannot come to a conclusion that they were trying to force the aircraft down. They may have been trying to indicate to them to leave their air space or they could have been trying to signal the aircraft to follow and go down. But I do not think you can make a judgment based on what I have seen.

Senator LEVIN. Now, the word that was used apparently yesterday in terms of resumption of our flights, which I very much support, is that they would be "resumed with circumspection." Can you give us a little more detail about that? Or would you want to just leave it where you have testified this morning?

Admiral FARGO. I think the comments that I made to the chairman's question about taking prudent measures here is consistent with the term "circumspection."

Senator LEVIN. "Prudent measures," does that imply to protect our plane if necessary?

Admiral FARGO. That implies the full range of things that we can do in terms of making sure we have the right intelligence, situational awareness, warning, and procedures in place to ensure that the plane can fly this mission safely.

Senator LEVIN. There has been some discussion about how we proceed with North Korea in terms of whether there should be direct discussions at a high level between us and the North Koreans. What has been stated frequently is that we prefer to proceed multi-

laterally with the other nations in the region, which obviously makes sense. We want to consult with them and to work with them in terms of how to respond to what is obviously a crisis. Now, some people do not want to describe this as a crisis, but, listening to your testimony and an awful lot of testimony and reports prior to your testimony, it is obvious we have a crisis on the Korean Peninsula.

But putting that aside just for a minute, this is my question. What the regional nations are telling us, every one, after we consult with them multilaterally, is that we ought to have direct talks with North Korea. That is one of the things that they are advising us to do, talk to North Korea directly. Is there any military reason that we should not have direct talks with North Korea? First, Admiral?

Admiral FARGO. Well, I think that the clear views that I get from talking to our regional partners here is they want to be part of any process with respect to North Korea. Certainly that is true of the Japanese and the Republic of Korea, and they want to be consulted and involved and their voice needs to be heard in this because they have huge equity here.

So I think that is the way that we have to proceed.

Senator LEVIN. Is there any military reason from our perspective, if our friends and other nations in the area are urging us to have these direct talks, is there any military reason from our perspective that we should not do so?

Admiral FARGO. Senator, I do not know how to answer that question.

Senator LEVIN. Have you been consulted on this question?

Admiral FARGO. I have been. What I am trying to do, with respect to my responsibilities, is to do the kinds of things with the Japanese and Koreans that build their confidence in a solution to the problem, to make sure that we have the right deterrent posture in place and the right warning for any future event. That is fundamentally my responsibility here in this issue.

Senator LEVIN. Do you want to add anything, General?

General LAPORTE. Senator, I would just reinforce what Admiral Fargo said. This is an issue that has international implications, international concerns, violations of an international treaty. I could not best advise on the best way of going about these negotiations. I think I would have to leave it to the experts, leave it to the Secretary of State to make those determinations.

Senator LEVIN. Thank you, Mr. Chairman.

Chairman WARNER. If the committee would indulge the chair, this incident brings us to the question of the historic problems that we as a Nation have encountered, 25, 30 years ago with the Soviet Union. We had very close calls in the air and on the sea, and we entered into the Incidents at Sea Executive Agreement.

Senator LEVIN. Which, if I can interrupt our chairman, our chairman was the person who represented our Nation at the signing of that treaty.

Chairman WARNER. I thank my colleague, yes. It has worked, if I may say with a sense of humility. It has worked very well.

So it comes to mind that, while we may not want to try a framework with North Korea at this time, at least we ought to try and take the precaution to establish, either directly or through inter-

mediaries, a system of communication between aircraft such as to avoid an unintended consequence. So I leave it at that.

My understanding, there is a channel that that North Korean plane could have come up on to communicate with our aircraft; is that correct?

Admiral FARGO. Mr. Chairman, I will have to take that for the record and get back to you, because I do not have it. I do not know the answer to that question.

[The information referred to follows:]

There is no installed capability that enables direct communication with the DPRK aircraft other than UHF/UHF Guard. Electronic voice communications were not established between aircraft.

Chairman WARNER. Well, I would suggest that we look into that, because relations between these two nations are very strained at the moment and a precipitate act by a military officer, intentionally or unintended, could exacerbate these situations. Thank you for the indulgence.

Senator Inhofe.

Senator INHOFE. Thank you, Mr. Chairman.

The plane that made the intercept was a MiG–29, is that correct?

Admiral FARGO. That is correct, sir.

Senator INHOFE. The MiG–29 is a very advanced aircraft, in some ways better than our aging F–15s and F–16s. I know that you folks are not Air Force, but I also know that is in your command.

I was very proud, about 5 years ago in the previous administration, when General Jumper in a different position made the statement of his concern over such aircraft as the MiG–29, the Su–27, the Su–30, some of the Russian vehicles, that are better than our aircraft in some ways. There is no sense in getting into which ways they are, but they are.

We all know that our pilots are better, our troops are better, but we do have these deficiencies. As far as that is concerned, I would just like to hear a comment on the capabilities of the North Korean Air Force and our assets, how they compare with each other, not the pilots but the equipment.

General LAPORTE. Senator, I could give you a very detailed answer in a closed session.

Senator INHOFE. Okay.

Chairman WARNER. It is the intention of the chair to provide a closed session following this open session.

Senator INHOFE. Well, that is fine. Something that does not require a closed session is a recognition of some of those problems. The Army, as you well know, also has some deficiencies. One of the problems we had in Operation Anaconda is we did not have the capability of really having a sophisticated artillery response. Close air support is good for the ground troops when it is working and when you do not have weather problems or you are able to get up there.

I have been concerned for quite some time that in the case of artillery there are some four countries, including South Africa, that make a better artillery unit than we have.

Admiral Fargo, I have not heard of anything that would be comparable to that in the Navy. Is there a deficiency in the Navy where our modernization programs have not really kept up with some of the potential adversaries that we have?

Admiral FARGO. Well, as I mentioned in my opening statement, I think the thing I am most concerned about in my area of responsibility is missile defense. I am concerned about the proliferation of short-range ballistic missiles and medium-range ballistic missiles and our ability to deal with that right now. We have programs that are coming along, but we have not fielded those yet and they are certainly key in my judgment to being able to protect our military forces both ashore and at sea.

Senator INHOFE. I only bring this up because I just think in all these hearings we need to recognize that we do have deficiencies. We need to get on with the F–22, we need to get on with a non-line-of-sight (NLOS) cannon that can be fielded and can be competitive with potential adversaries.

General LaPorte, today in the New York Times you said that there are no signs that North Korea was preparing for war, but you also said, "They have studied our military actions most recently in the Balkans and Afghanistan and have adapted their tactics to offset our technological advances."

Could you elaborate a little bit on that comment?

General LAPORTE. I am not certain I made that quote, but I will answer your question.

Senator INHOFE. Oh, then you were misquoted. I am not saying this critically, by the way. I was very much concerned when I saw that.

General LAPORTE. North Korea has for the past 10–12 years adapted based on what they perceive as the strengths of the United States military. They have adapted in several ways. First, in terms of communications, they have developed an indigenous frequency-hopping radio that allows them to communicate in a secure mode. They have gone to a great deal of fiber optics in terms of their communications between fixed facilities.

In an attempt to protect their forces from our surveillance and air capabilities, they have gone to a tremendous number of underground facilities throughout North Korea to protect leadership and critical forces. Those are examples of the way North Korea is adapting to what they perceive as the capabilities of the United States.

Senator INHOFE. Thank you very much.

Finally, let me ask Admiral Fargo this question. There was a severe case of righteous indignation that set into the North Korean press when the U.S.S. *Carl Vinson* was holding its exercise. They were talking about, that the exercise at its height made the situation so tense that a nuclear war may break out at any moment.

Isn't this exercise that they refer to by the U.S.S. *Carl Vinson* the same exercise that we do on a regular basis virtually every year?

Admiral FARGO. Yes, Senator, that is exactly right. We do an annual exercise on the Peninsula and in the surrounding waters and we try to commit a carrier battle group to that exercise every year.

General LAPORTE. I would add to that, Senator Warner, this exercise had been planned for over 5 years. We plan them 5 years in advance. It was planned for this time. It is a nonprovocative exercise. It is focused on the reception of forces into the Peninsula

and integrating them in. So I think their claims are really not accurate.

Senator INHOFE. I appreciate that. My time has expired, but I think we needed to say that, because a lot of people read that and think that this is a provocative act, which it is not.

Thank you very much, Mr. Chairman.

Chairman WARNER. Thank you, Senator.

Senator Akaka.

Senator AKAKA. Thank you very much, Mr. Chairman.

I want to welcome our panel this morning and commend you and all of our troops. I want to tell you that we are very proud of what you are doing.

General LaPorte, your statement discusses periodic tension in the Republic of Korea and the United States alliance. You refer to the generation of South Koreans who have lived in an era of peace and prosperity, who have little or no understanding of the North Korean threat. From your vantage point, do you believe there has been a diminishment of support for American troops in the South?

General LAPORTE. Senator, I have been asked quite often recently, do we have a crisis in South Korea? My response has been adamantly no, we do not. We would have a crisis if South Korea was unable to hold democratic elections like they just did. We would have a crisis if the civilian authorities did not control the military. We would have a crisis if people were not allowed to gather and to speak their mind. We would have a crisis if people were unable to worship freely.

That is not the case in South Korea. We have a maturing democracy and what we have is a democracy that is dealing with the challenges of a democratic society.

I will tell you that most of the Korean people truly support the United States Forces Korea. Last weekend there was a rally. Over 70,000 Koreans came out waving American flags. They unfurled a massive flag, a massive Korean flag, a massive United Nations flag.

Senator INHOFE. Where was that, General?

General LAPORTE. In South Korea, in the capital, in Seoul. They were demonstrating their support.

But the fact still remains, due to the combined efforts of the Republic of Korea military and the United States military, we have been very successful in our deterrent mission for 50 years and we have provided a peaceful environment that has allowed great prosperity. So many of the younger generation, 45 years and younger, have lived in that prosperity in the era of peace. So they do not have a true, full appreciation of the threat that the North Korean military presents. We need to work on that and we will.

Senator AKAKA. Thank you for that response.

General, Senator Warner mentioned Assistant Secretary of State James Kelly's testimony before the Senate Foreign Relations Committee yesterday that North Korea could produce significant plutonium within 6 months, but that the HEU, highly enriched uranium, alternate capability is not so far behind. Mr. Kelly also followed up saying that the HEU program, "contrary to conventional wisdom, is not a problem for down the road, but a real threat in a matter of months."

I would like to have a clarifying assessment of this.

General LAPORTE. Well, I agree with Secretary Kelly in terms of the plutonium. If the North Koreans were to open the reprocessing plant in Yongbyon and start reprocessing the spent fuel rods, it would be a short period of time in which they would be able to leach out the weapons-grade plutonium and have enough to produce nuclear weapons.

In terms of the highly enriched uranium source, I would like to address that in a closed session for you.

Senator AKAKA. General, according to an unclassified summary released in November 2002 by the CIA, the CIA said, "We recently learned that the North is constructing a plant that could produce enough weapons-grade uranium for two or more nuclear weapons per year when fully operational, which could be as soon as mid-decade."

Do you see the HEU program becoming in a matter of months a serious threat?

General LAPORTE. I think the HEU program is a serious threat. In terms of the timing and when they would be to a point where they could process the uranium, it is still in question. We know for certain that they have been involved in gathering the technologies and the equipment necessary to use this method of producing highly enriched uranium, and we can talk in a closed session in terms of the timing of it.

Senator AKAKA. Admiral Fargo, I have been very concerned, and we have spoken about this, about the homeland security of the State of Hawaii and the territories of the Pacific. I have continuously asked about the coordination not only between the Department of Defense and the Department of Homeland Security, but also between Northern Command and Pacific Command. What kind of coordination is occurring to ensure that Hawaii's homeland security needs are not forgotten as Federal policies develop involving the other 49 States?

Admiral FARGO. Senator, I think the coordination between Northern Command and Pacific Command is excellent. In fact, General Eberhart was at my headquarters within the last 7 days. We have talked through these issues with his command. We are also proceeding on planning that is very closely aligned. In Hawaii and the other areas within the Pacific we built the Joint Rear Area Coordination Group that was designed specifically to provide the kind of intelligence and crisis response and help to first responders that was necessary to ensure that we had a strong partnership with the State and the local government.

We are going to transition that to what I will call Joint Task Force (JTF) Pacific, which will provide once again a capability to ensure that the coordination is absolutely strong. This is essentially the same procedure that is being done in NORTHCOM. But our relationships with organizations like the Joint Terrorist Task Force in Hawaii are very strong. Our relationships with the Governor and the Mayor's offices to make sure that they have this information readily are also solid.

So I am very comfortable that we have the procedures in place now and have a good plan for the future to support our homeland defense responsibilities and our homeland security responsibilities.

Senator AKAKA. Thank you very much, Admiral.

Mr. Chairman, my time has expired. Thank you.

Chairman WARNER. Thank you, Senator.

Senator Roberts.

Senator ROBERTS. Thank you, Mr. Chairman. I have a prepared statement I would like to insert in the record at this point.

Chairman WARNER. Without objection.

[The prepared statement of Senator Roberts follows:]

PREPARED STATEMENT BY SENATOR PAT ROBERTS

Thank you Mr. Chairman. I am glad to have Pacific Command, Southern Command, and U.S. Forces Korea represented here today. Gentlemen, I commend you and the men and women who serve under your command.

Undoubtably, this hearing will touch on various aspects of the current worldwide threat situation and the appropriate U.S. response. Along those lines, I want to express for the record what I see as President Bush's national security strategy and where the current government of Saddam Hussein fits in.

I realize Central Command is not appearing today but we keep going around and around on this subject here in Congress, sometimes losing sight of what we do here in Washington is all about.

President's Strategy

The President's national security strategy is simple: prevent a nuclear, chemical, or biological weapon from ever being detonated in the United States. That's it. It's not about oil, old scores, or even fostering political revolution as certain ″intellectuals″ believe. It's about preventing hundreds of thousands of Americans from dying in an instant.

Toward that end, this administration has, quite logically, sought to prevent the acquisition of weapons of mass destruction (WMD) capability—be it large scale passenger-carrying aircraft, nerve agents, anthrax, highly enriched uranium, etc.—by the new apocalyptic terror groups we all saw in action on the morning of September 11, 2001.

We know in such groups "the will" is there so it's largely a question, at least in the short term, of preventing the means, "the way," for suicide terrorists to destroy our cities and kill our people. A good start, naturally, is to take a hard look at regimes that, for whatever reason, support terrorism in general, hate the United States, and possess—or seek to possess—WMD.

That's what the axis of evil is all about: Iran, Iraq, and, yes, North Korea. In particular, we have no choice but to deal right now with those axis of evil regimes with links to the new apocalyptic terror groups.

Which government fits the bill at this moment? The government of Saddam Hussein. With which terror groups is he associated? Those lead by Mr. Poison Center himself, Abu Masab al-Zarqawi.

This is not debatable. Understanding this situation is not a matter of political persuasion. It's established fact and since no member of the United Nations, except perhaps Great Britain, faces the specific threat the U.S. faces, we should not be surprised the Security Council does not support the destruction of Saddam's regime. Why should they?

None of their cities and landmarks are on the top of al Qaeda's hit list. They didn't lose 3,100 people and their two tallest buildings in 90 minutes. They do not face the same threat. They do not experience the same fear. Of course, invite them along, but, if they refuse to join the effort, then move on for goodness sake. In this day and age, on these issues, with the emerging nexus between suicide terror groups and weapons of mass destruction, it is the height of irresponsibility to make fundamental policy decisions based on what Paris, Bonn, Moscow, or Brussels thinks.

That is taking multilateralism to an absurd extreme. It is leaving the safety of our people to governments who have no responsibility nor incentive for protecting them.

Prioritizing Threats

I hope we do not spend too much time today arguing again about who constitutes the greatest threat to us right this second. Is it Saddam Hussein, Kim Jong Il, Supreme Leader Ali Khamenei in Iran, or Osama bin Laden? They are all major threats, challenges to U.S. security here at home that get worse with time if not acted upon.

They all represent unique geopolitical circumstances demanding tailored solutions. Indeed, they all demand action now but different kinds of action. Just because the military instrument of power is the choice for responding to bin Laden and may become the choice for responding to Iraq, it by no means suggests force is appropriate right now for North Korea or ever in the case of Iran.

It's not that simple and we ought not to mistake complexities in the threat picture for contradictions in policy. For example, North Korea, as dangerous and unstable as it is, has not invaded its neighbor to the south since 1953.

We cannot say the same for Saddam who invaded Kuwait in 1990 with what looked at the time like intentions for Saudi Arabia as well. Not to mention the fact that, as I noted earlier, to my knowledge North Korea is not currently harboring senior members of a terror network lead by a close associate of Osama bin Laden.

Iraq's Last Chance

But this is really beside the point. In passing H.J. Res. 114, Congress specifically authorized the President to "use the Armed Forces of the United States in order to—(1) defend the national security of the United States against the continuing threat posed by Iraq; and (2) enforce all relevant United Nations Security Council resolutions regarding Iraq." Colleagues, that resolution passed the Senate 77 to 23 on October 11, 2002.

This action was, of course, in addition to the Iraq Liberation Act, which Congress passed and President Clinton signed into law October 31, 1998. That Act clearly states the U.S. should foster regime change in Iraq.

Lastly, on November 8, 2002, the U.N. Security Council passed Resolution 1441 which gave Iraq one last opportunity to comply with its disarmament obligations.

Now, months later, the Director of Central Intelligence (DCI) has told us unequivocally that "Iraq has in place an active effort to deceive the U.N. inspectors and deny them access. This effort is directed by the highest levels of the Iraqi regime. Baghdad has given clear directions to its operational forces to hide banned materials in their possession."

Further, the DCI stated "Iraq's biological weapons program includes mobile research and production facilities that will be difficult, it not impossible, for the inspectors to find. Baghdad began this program in the mid-1990s—during a time when inspectors were in the country."

Even the latest U.N. assessments directed by Dr. Blix indicate Saddam Hussein is still not complying. Colleagues, let us be candid. No amount of U–2 surveillance flights nor increase in the number of inspectors will solve this problem, at the very least with respect to biological weapons. Let's be honest. The U.S. Government has bent over backwards to manage the threat from Saddam Hussein without further military action.

Senator ROBERTS. I want to go back to the suggestion that some have made in regards to direct negotiations with North Korea and Kim Jong Il. It is my understanding—in the Intelligence Committee we have had numerous briefings. Basically, the Director of Central Intelligence (DCI) has indicated that Kim Jong Il's attempts this past year, "to parlay the North's nuclear weapons program into a political leverage suggests he is trying to negotiate a fundamentally different relationship with Washington, one that implicitly tolerates the nuclear weapons program."

I guess my question is, why take the bait? It seems to me that they have stated their basic purpose of any direct negotiations would be a nonaggression pact. To enter into those negotiations at this point without our neighbors in that same neighborhood seems to me to be pointless. They continue to provoke and proliferate. I think the estimate in 5 years is that they could have numbers in double digits in regards to missiles and warheads that they would sell, maybe worth a billion and a half or 2 billion dollars, they would have to proliferate to receive any income; and that country is a basket case.

Their behavior in regards to what General LaPorte has already indicated in regards to crime, drugs, and kidnappings, etc., is deplorable. They are a theocracy. I have been to Pyongyang. I was

part of the first official delegation allowed in, not really to negotiate, but at least to have some dialogue. That was 4 years ago. So we tried some direct dialogue, not negotiations, and we were trying to arrange a third-party grain sale to address the famine, which was even more severe say 4 or 5 years ago. What we got back was rhetoric and a very surreal experience.

Let me give you a plausible intelligence scenario, both for Admiral Fargo and General LaPorte, in regards to Kim Jong Il and what he has in his mind in terms of the future. I think my suggestion would be or my surmising of the intelligence that is provided is that he views the countries of the world in two categories, (1) those that have capability in regards to nuclear weaponry, and (2) those that do not; and then he separates again where the United States and the international community will permit that, i.e., India, Pakistan, and other countries, and he wants to be the Musharraf, if I could use that as a very poor I guess analogy, and to basically have the U.S. accept his position in regards to being a producer of nuclear weaponry. That basically is his goal and he is going to continue the production and he is going to continue testing and he is going to continue launching until he gets into that category. It seems to me that is what his goal is.

If that is the case, why on earth would we want to take the bait and go into direct negotiations when in fact this is a big international challenge? Would you have any comment other than to say yes, you agree with me?

General LAPORTE. Senator, there is no question in my mind that Kim Jong Il is in charge and he is making the decisions, and his main goal is regime survival. His most pressing concern is his failed economy. North Korean provocations and nuclear brinkmanship are aimed at gaining security guarantees and economic assistance to ensure that that regime remains in place.

Senator ROBERTS. Admiral Fargo?

Admiral FARGO. Senator, the only thing I would add to that is it is pretty clear that he is not complying with his current agreements.

Senator ROBERTS. Let me ask something that occurred to me when I was there again on a second Congressional Delegation (CODEL). 116,000 Americans in regards to South Korea, 37,000 members of the Warrior Division, 20 minutes from what I would describe as possible Armageddon with the capability that North Korea has. Why keep our families there with the current situation? I have never understood why that has to be? I know the quality of life means a great deal, but 37,000 of the Warrior Division have certain circumstances, others who are stationed there, and a great many more Americans. I do not think we want to signal that we want to withdraw by any means in terms of weakness or send any signals like that down the road in regard to our resolve. But it has always bothered me from that standpoint.

Would you address that, General LaPorte?

General LAPORTE. Yes, Senator, I will. We have approximately 5,000 family members on the Peninsula. We have 37,000 service members on the Peninsula. Let me address it from the standpoint of desires to serve in Korea from a service member's perspective. There are three aspects of service in Korea that we work very hard.

First is and foremost is the family separation. 67 percent of U.S. service members are married, and they are put under a lot of stress and strain in terms of family separation. Right now if you serve in overseas positions you are not guaranteed you are going to remain there. You may be deployed so you are away from home many times.

Only 7 percent of my 37,000 have family members accompanying them. It is an important aspect of having an accompanied tour in Korea. Up north where the Second Infantry Division is, there are almost no family members. There are some, but very few.

We need to look at a balanced approach in terms of our positioning of the U.S. forces in Korea and having a reasonable rate of accompanied families associated with it. We have procedures in terms of notification of what we call noncombatants and we have procedures if the need arises to move them and evacuate them. But that is a big issue for service members in terms of being with their families, something that is a very difficult challenge where there is a real threat.

We had a similar threat in Europe for a period of time, and I think we have to put some thoughtful work into it.

Senator ROBERTS. If he pulls the trigger you have about 20 minutes. I do not know what evacuation plan is going to be successful under those circumstances. I am not trying to pick an argument with you. It is just something that I have been concerned about for several years and I know you are as well.

Thank you, Mr. Chairman. My time has expired.

Chairman WARNER. Thank you, Senator Roberts.

I think at this point in the record you ought to expand on this important inquiry by our colleague, because in the private consultations that you and I have had you alluded to your thinking something should be done, but you are doing it right now, together with the Secretary of Defense, looking at the entire force structure, the disposition of that force structure on the Peninsula, and the numbers involved. Am I correct in that?

General LAPORTE. That is correct, Mr. Chairman. In December we had a security consultative meeting in Washington. The Minister of National Defense from Korea and the Secretary of Defense agreed to conducting a Future of the Alliance study initiative with the new South Korean administration once it came into office.

On the 26th of February, Department of Defense policy personnel came and we initiated discussions with the South Korean Government associated with roles, missions, force structure, and basing of forces. We think this is a very healthy process to do. October is the 50th anniversary, so why not reexamine and reaffirm our commitment to the alliance, but it may not have to look exactly as it has looked like for 50 years.

Chairman WARNER. Thank you, General. Thank you, Senator Roberts, for raising it.

Senator Bayh.

Senator BAYH. Thank you, Mr. Chairman.

Gentlemen, let me begin by thanking you for your service to our country. We are all very grateful to you. I hope you will express that gratitude to the men and women who serve under your commands.

General Hill, I am going to try to get to you eventually, but I do have a couple of questions about Korea first. I do not want you to be insulted feeling like you have been left out of everything today.

General HILL. That is all right, sir.

Senator BAYH. I am interested in a couple of the issues that you deal with.

But first a couple of things about Korea. To Admiral Fargo and General LaPorte. This situation, the nuclear tensions in the Korean Peninsula, may not be resolvable through a dialogue, but they are certainly not resolvable peacefully if we do not try under some set of circumstances. Having said that, I think we need to keep all the options on the table in case whatever dialogue develops fails, either because the North Koreans have made a strategic decision they are just going to go down the road of increasing their nuclear capabilities or because there is nothing that we can offer them that will convince them to desist in that path or, even if there is something we can offer them, perhaps we conclude that we cannot verify that they will abide by any agreement we might reach.

For whatever set of circumstances might exist, the President needs to have all the options available to him, as do we. If we chose to try and remove the reprocessing facility and the small reactor that they have, the launch sites for the longer missiles that they have developed, do we have the capability of doing that?

Admiral FARGO. Senator, we have a wide range of capabilities and great capability in terms of precision-guided munitions. I am not going to go into the specifics of any particular potential targets or the hypothetical. I am obviously very confident with the capability that we have at hand today.

Senator BAYH. I appreciate the need for some vagueness in your answer, Admiral. I will not press you further on that.

The reason I ask the question is if you do not have that capability then obviously that takes one option off the table and forces you in a different direction, even if you do not have great confidence at the end of the day it is going to achieve the security of the country that you are trying to achieve.

If we were to pursue such an option, what do you anticipate? Obviously, we have to try and game these things out. What is the likely response that the North Koreans would present us with?

Admiral FARGO. Senator, these are things that we have given a lot of thought to and I would really like to deal with these in a classified session if we could, please.

Senator BAYH. I will respect that, Admiral. Perhaps you will feel the same way about my next question. It is along the same lines. The North Koreans obviously have missiles that are capable of hitting Japan. We suspect that they may have one or two nuclear warheads. Do we know that they can fit those warheads to those missiles? Would Japan be at risk of a nuclear strike if hostilities were to break out?

Admiral FARGO. Senator, I am not trying to duck these, but these all have great intelligence-related components to the answers. So if I could, we could deal with it in another session.

Senator BAYH. My curiosity unfortunately leads me into areas that we cannot discuss in this forum.

Maybe a couple of things we can discuss. I would like to follow up on Senator Roberts' questions and the chairman's questions. I do hope that we are giving serious thought to repositioning our forces on the demilitarized zone (DMZ). It seems to me one of their likely responses—if they are interested in continuing to drive a wedge between us and our South Korean allies, they would launch a large barrage on Seoul. That would perhaps backfire in terms of public relations. They are more likely to try and attack our troops along the DMZ. It seems to me that the troops are really sitting ducks there. I hope we give some serious consideration to at least repositioning them somewhere out of artillery range. I will just make that comment. I think the General already indicated that we are giving serious thought to that.

Maybe you can answer this on the record. If the North Koreans were to declare themselves a nuclear power or at some point in the next year or so were actually to test a nuclear device, what do you think the reaction of the South Korean military authorities would be to that? You have discussed, both of you, the change in public opinion in the South. What effect would that have on public opinion in the South, if any? Or if you cannot discuss public opinion, at least the South Korean military authorities?

General LAPORTE. I am confident, working with the South Korean military on a day-to-day basis, that the South Korean military would follow explicitly the guidance given to them by the civilian leaders.

Senator BAYH. They seem to be—I do not want to say denial, but they are certainly downplaying the potential threat from the North. I was wondering if this might convince them to take the threat a little more seriously at this point.

General, let me ask about Colombia, hopefully with a little more luck here.

General HILL. Yes, sir.

Senator BAYH. The violence seems to be escalating. The Revolutionary Armed Forces of Colombia (FARC) has obviously gotten some assistance from others in urban warfare techniques and so forth. I am told by at least some informed individuals that there really are not demands that the FARC has put on the table today that might give one much hope in terms of a negotiated settlement of this conflict any time soon.

In your opinion is there a military solution to this problem?

General HILL. Senator, I believe that I look at Colombia pre- and post-7 August, which is when the Uribe Government took over. They have energized both militarily and in all the other facets of governance—judicial, economic, and political reform—they have energized the Colombians to levels they have never reached before. I believe that they have in fact on the military side gained the momentum on the FARC and the National Liberation Army (ELN) and the United Self-Defense Forces of Colombia (AUC). I believe that they can maintain that momentum if they continue to see it through and I believe they will, and that we continue to support them in that effort.

They will never in my opinion totally eradicate those organizations. They will not eradicate them because they have morphed from purely ideological entities into narcoterrorists and they are

now in the business of making drugs and in the drug trade. They will not want to give up their businesses.

In my opinion, as they continue movement in all areas, not only military but the other areas of governance, the Government of Colombia can reclaim portions of Colombia that they have not been in in years, and they are in the process of doing that. They can stop the FARC, the ELN, and the AUC from operating with impunity throughout the countryside, and then they can maintain and restore the greater part of their democracy.

Senator BAYH. Mr. Chairman, could I make two brief comments? My time has expired. They are very brief.

Chairman WARNER. I tell you what. We are going to have another round in which you can participate.

Senator BAYH. General, I appreciate it. I take your answer to be that they are making progress, therefore making our support worthwhile, even though there is no final resolution to this process through military means only.

General HILL. There will never be a pure military solution to the problem that is Colombia. They recognize that and we recognize that. But I remain cautiously optimistic.

Chairman WARNER. That is an important line of questions that you have proposed and I intend to do a follow-up.

Now we have Senator Pryor.

Senator PRYOR. Thank you, Mr. Chairman.

My first question relates to Korea. As I understand it, we have somewhere between 30,000 and 40,000 troops stationed there right now. The South Korean military is maybe around a million or so. Those are round figures, I know. This is more of a philosophical question, and that is, in your estimation, what is the deterrence consideration that we provide in South Korea?

It seems to me that we would be quite a deterrent to any aggression by North Korea and that it is important that we maintain a presence there, if nothing else, just for the deterrence factor there. Could I hear a response on that?

General LAPORTE. Senator, I think you are exactly right. We have been a tremendous deterrent for the past 50 years, but it has been a result of a combined forces deterrence, not a U.S. unilateral deterrence.

I would just like to highlight, the South Korean military is a very capable military, over 640,000 strong on active duty. They are well-equipped, they are well-trained, and they are extremely well-led. They are motivated. They are good warfighters. We train with them on a daily basis. They have a very good army that has modern equipment. They have an air force with very talented and very well-trained pilots and good equipment. They are purchasing the F–15. Their navy is a very good navy and getting stronger every day. They have one of the finest marine corps in the world.

So I have great confidence in the South Korean military and they play a predominant role and it will be an increasing, significantly more viable role in their national security posture.

Senator PRYOR. This is a follow-up to Senator Roberts' question a moment ago. I know that he was not implying this or would not even ever say this because he does not believe this, but I have heard some say that we should just withdraw from the South Ko-

rean Peninsula altogether and always be ready to respond, but not have any presence there. I personally think that is a mistake, and I would like to hear your thoughts on that.

General LAPORTE. I began in my conversation saying that what happens in Korea has an impact throughout the world and I truly believe that. Thirty percent of the gross domestic product of the world is produced in the Northeast Asia region. You have four of the largest six militaries in the world there. For the reasons of stability and peace, I think it is very important that the United States has presence on the Peninsula and that that presence is linked with forces in other regional neighbors and allies throughout the Pacific.

Senator PRYOR. If I can change gears and go to Colombia here for just a few moments. I will be glad to sit down and meet with you in private about this. I do not want to say I have a concern, but I want to make sure that you and your forces are receiving the right kind of training, right kind of equipment, and the right kind of people there to fulfill your mission.

I know it is very difficult, under very difficult circumstances. It is a different kind of mission. It is a very unique mission in a lot of ways. I just want you to know that I would be glad to sit down any time and talk about what you think your special needs may be to accomplish the goal there.

General HILL. I appreciate that, Senator, and I will set up a time to come in and do that.

Senator PRYOR. Thank you.

General HILL. Thank you, sir.

Senator PRYOR. That is all, Mr. Chairman.

Chairman WARNER. Thank you very much.

General Hill, I would like to follow on that line of questions by our colleague. We now have caps on the number of persons and so forth. I presume you are in consultation with the Secretary of Defense and others on that issue. Do you have a view, your professional view, that you would like to share with the committee regarding those caps and your ability to carry out the mission to which you have been assigned?

General HILL. Yes, sir. I believe at the present time, given the mission that we are doing, we can operate within that cap. I would not say that down the road you might want to relook that issue, but at the present time I stay within the cap and we can accomplish our mission within the cap.

As you are aware, we have gone slightly over the 400 number in personnel during the last 30 days in our search for the Americans. But the law allowed for that and we made the proper notifications.

Chairman WARNER. I would hope that the adversaries would not misinterpret the intention of this country to be supportive to stamp that out by virtue of this cap situation. Do you find that they can utilize that cap to their advantage by telling those who support them, you see that the United States is not serious about this?

General HILL. No, sir. I think that they understand that the United States is serious about this.

Chairman WARNER. All right, you have answered the question.

General HILL. May I add one other point to that?

Chairman WARNER. Sure.

General HILL. Going back to Senator Bayh's earlier question, as you look at the escalating violence—his term—I believe that what is going on in the last couple of months in Colombia is an indicator that the Colombian efforts supported by the United States is working, is a successful program, and that is why you are seeing this change in the way that especially the FARC are operating.

Chairman WARNER. Well, let us just go right from that observation, which is a very important one you have made. Do those perpetrators of harm and deceit and production of drugs and dissemination of same now figure that the intensity of our effort in Colombia requires them to go to other countries and begin to establish a stronger base of operation there? What should we do to address that?

General HILL. Yes, sir. The FARC and the ELN, all three of the narcoterrorist groups that operate in Colombia, operate in varying degrees on the other side of the borders of the neighboring countries, in all of them. As I have traveled through the region and from the very beginning of my first trip, I have talked to both the political and the military leadership and said: "As we continue to win the battle in Colombia, you are going to have to work your side of the border, and you need to, with greater coordination with the Colombians, do that." I have offered up SOUTHCOM facilitating apparatuses to assist them.

I believe that this is coming to fruition. Just yesterday the Colombians held a meeting in Bogota with government representatives from Panama, Venezuela, Brazil, Ecuador, and Peru. They met for a day and all agreed that they needed to establish greater cooperation along those borders. This is an important step and one we should not overlook.

Chairman WARNER. I think it is important that our record reflect that the committee is concerned about Venezuela and also your status report on Panama and particularly the functioning of the canal to serve the interests of the world.

General HILL. Yes, sir. First on Panama, I was in Panama 2 weeks ago. I toured the canal and I met with President Moscoso, the chief of the Panamanian police, the commissioner of the canal, and other important people inside Panama. We have worked with them and are continuing to work with them over the security of the canal. I believe the Panamanians are capable of defending the canal and supporting their role in it, and that the canal is operating very efficiently. I have heard of this both professionally and anecdotally from many people.

Chairman WARNER. Let us shift to Venezuela.

General HILL. Yes, sir. Venezuela—during the first part of the major strike, I believe that what you saw in Venezuela was, for lack of a better term, democracy in action: people in the street with opposing views to the elected president. Following the strike, it seems to me that his actions might portend a move toward greater authoritarianism. In my mind that bears watching very carefully. I have directed my people to do that. I have not been in Venezuela. I have not been in contact with any senior level military of Venezuela, although we continue to have military-to-military relationships with Venezuela.

I think it is also important to note that the work we have done, not only in Venezuela but throughout the region, has paid off in the professionalization of the militaries. The Venezuelan military did not go out into the street and kill its citizens, nor did they conduct a coup. I think that is an important aspect of what is going on there. But we are watching Venezuela carefully, sir.

Chairman WARNER. Thank you very much.

Admiral Fargo, I think it is very important that you bring the committee up to date with respect to China and particularly our military-to-military relationships. They appear to be strengthening. Am I correct in that?

Admiral FARGO. Mr. Chairman, I would agree. I just visited China in December, visited five cities in 5 days in three of the military regions, and had a very, I would term it, constructive and useful dialogue with primarily the military leadership, but to some degree some of the political leadership also.

We have also started an exchange of port calls. Admiral Gaffney, who heads our National Defense University, is conducting educational exchanges with China. Of course they are a regular participant at the Asian Pacific Center for Security Studies.

Chairman WARNER. This is on a positive trend?

Admiral FARGO. I think it is a positive vector, is the way I like to put it.

Chairman WARNER. I would like to shift to Taiwan, a very valuable relationship between our nations, that is the United States and the current government there. Bring us up to date on that. The tensions appear to be somewhat lessened at the moment.

Admiral FARGO. I think that is a fair characterization. Certainly our relationship with Taiwan is governed very clearly by the Taiwan Relations Act. There is a great deal of economic connectivity right now between Taiwan and the People's Republic of China (PRC), and certainly I would term the level of tension right now in the Strait is relatively low.

Chairman WARNER. We have a government-to-government relationship and I think it is important. Thank you very much.

Let us conclude my questions on India. India is in our AOR, but of course we would have to address the relationships with Pakistan, which is in CENTCOM. But you can address that status there.

Admiral FARGO. Mr. Chairman, I certainly can. I used to command our naval forces in the Central Command and so I am very familiar with Pakistan. I have been there a number of times.

Right now we are building a relationship with both India and Pakistan. We recognize this is not a zero sum game. We ought to be able to have a productive and constructive relationship with both countries. India, specifically, is helping in the global war on terrorism. They contributed a ship to conduct the Straits of Malacca patrol as part of the global war on terrorism. I have also been there recently and talked to their leadership. We think India is a natural partner, the largest democratic country in the world, and we are improving our relationship and expanding our military-to-military cooperation with India.

Chairman WARNER. I thank you.

Senator Levin, I see two colleagues have joined us. Senator Ben Nelson, to then be followed by Senator Reed.

Senator BEN NELSON. Thank you, Mr. Chairman. I apologize for being in and out. It is difficult to do several things at once around here, but sometimes you are required to do that.

First of all, I want to thank all of you for being here. General Hill, it is good to have you back and this time testifying for Southern Command. I appreciate that very much. My first trip as a Senator was with two of my colleagues here to visit Colombia. I have followed as closely as possible what has been going on in the Andean region. I hope you will forgive me if I focus most of my time on Admiral Fargo and General LaPorte.

Both of you lead commands that the entire world is watching right now and, although Iraq tends to garner greater attention at the moment, I truly believe that in many respects North Korea presents the more immediate and maybe in some respects the greater threat at the moment. Our military buildup in Iraq is required to keep that nation from becoming the next North Korea.

But in our effort to deal with that one threat, it seems to me that we are missing an opportunity to address the other. I am speaking, of course, of the decision to engage North Korea only in multilateral talks. Unfortunately, our allies in the region do not seem to share that same enthusiasm for multilateral talks. China and Russia have also suggested that this is an issue for the United States. North Korea states that they will only meet us on a one-on-one basis.

I would prefer multilateral talks, but I do not think we can wait for partners who do not seem to be coming to join us at the moment and who do not seem to be welcome at the table with respect to the North Korean position. I understand the argument that the administration has made that they do not want to reward bad behavior. Neither do I. But waiting to talk until North Korea has a larger nuclear—or has a nuclear arsenal and continues to be the greatest proliferator and the one-stop shop for rogue nations as well as potentially for every possible terrorist is not a very attractive alternative.

I think we can act as though we have options, but I think our options are really basically two: We negotiate or we wait until there is a nuclear arsenal and then we are worried more about what is the military reaction to this if we are even able to have a diplomacy opportunity.

I believe the best course of action—and I have offered this as a construct for negotiation—is to use what I have referred to as the simultaneous model of engagement, in which North Korea would agree to freeze its nuclear program in both cases and allow inspectors to confirm those actions, while the United States agrees to hold off any military action, not necessarily a nonaggression pact, but an agreement to withhold any military actions before and during negotiations, talks, and not to impose any kind of economic sanctions in that process as well.

I appreciate so much a little over 2 weeks ago the fact that General LaPorte and other colleagues there, including the ambassador, gave us a fairly substantial briefing on the nature of the challenges that are there on the Peninsula. I do believe that a simultaneous

model of negotiation can work, but it requires that we will agree to do it on a bilateral basis.

I have followed the first steps toward bilateral discussions or at least that suggestion. Secretary Powell then said that his statement about that was the equivalent of leaning too far forward on his skis; apparently he was perhaps just a little bit ahead of himself. Secretary Armitage also had some reference to bilateral talks. I can understand that there can be differences of opinion in the administration.

But my concern is, if we do not address the threat soon I fear we are going to come to regret it. In 50 years it will not be about whether we had bilateral or multilateral talks, but about whether we were able to work together to stop the nuclear threat at this point in our history.

Admiral Fargo, the administration has really made it clear that they want multilateral talks. Obviously, North Korea said, no, they want it one-on-one. Fifty years from now, what do you believe will matter most, whether we have bilateral talks or that we were able to work together, hopefully, to resolve the nuclear issue?

Admiral FARGO. Well, Senator, fundamentally I believe this is a multilateral issue. It is certainly a regional issue and all of our partners in the region have said that a nuclear-capable North Korea is unacceptable to them. It is not only a regional issue; it is an international issue, and that is certainly why the International Atomic Energy Agency (IAEA) has taken this to the UN and the Security Council. That is my belief and I think that is the proper way to approach it.

Senator BEN NELSON. Well, I understand. Now, the President in his news conference said it was regional. He did not say it was global. I am not going to suggest to you, in baseball parlance, that saying it is regional and global is trying to steal second and keep your foot on first. I am not going to suggest that.

It is difficult to distinguish or to draw a line on what the distinction is. To go ahead and say it is regional, I do understand that. But it does have these global implications and I can understand the interest that some have in saying, let us get together with the North Koreans and let us start the talks. If we can expand them into multilateral discussions and multilateral solutions, we will deal with the regional issue very effectively. But we also will begin to deal with the global aspect of it because of the missile capacity of North Korea to potentially reach the west coast of the United States and other locations of a considerable distance.

Maybe it sets you up for a question that is very difficult to answer, but it does seem to me that we have to pursue this aggressively now.

My time is expired. I appreciate it. Thank you.

Chairman WARNER. Thank you very much, Senator.

Senator Reed.

Senator REED. Mr. Chairman, I understand we are prepared to go into closed session now?

Chairman WARNER. My colleague has his second round opportunity. If you would like to take a brief one, we have time for yours and Senator Levin, then go to closed.

Senator ROBERTS. Mr. Chairman——

Chairman WARNER. Senator Roberts also.

Senator ROBERTS. I wanted to ask General Hill some questions.

Chairman WARNER. I think we will proceed then to complete our second round.

Senator REED. Mr. Chairman, at this time let me just say publicly how much respect and esteem I have for the gentlemen here and the job they are doing for the country, and then reserve my questions for the closed round.

Chairman WARNER. Well, you are a running mate of most of these generals, are you not, out of West Point?

Senator REED. Well, General LaPorte is from Rhode Island and I do not want to suggest that everyone from Rhode Island is 5½ feet tall, but we are very proud of his contribution to the national defense.

General LAPORTE. Thank you very much.

Senator REED. Admiral Fargo apparently made a critical mistake in his youth and went to Annapolis, and General Hill is just a general. You have been a great general. So I have a great deal of respect and affection for——

Chairman WARNER. Your time has expired. [Laughter.]

Senator REED. Thank you.

Chairman WARNER. Senator Roberts.

Senator ROBERTS. Thank you, Mr. Chairman.

In view of the Senator from Arkansas' remarks in regards to my position on a possible withdrawal from Korea, nothing could be farther from the truth. I would point out that in terms of war planning, on the first day of war we have one division, the Warrior Division, the South Koreans would have 28. The fourth day of war their Reserves would come on and they would have 44 divisions, as I understand it.

We also provide 50 percent of the air force capability, 80 percent of the naval capability, and 100 percent of the command and control, and it is an integrated force. So there is no way that we should be even thinking about any kind of withdrawal for these combatants.

Ten thousand members of the 37,000 who are combatants, of the Second Infantry Division, 10,000 in regards to the Air Force personnel, 15,000 in terms of headquarters and support, mostly in Seoul. But it is the 116,000 noncombatants that I am concerned about. I am concerned about combatants as well. Five thousand military dependents, and that was the key that I was really referring to; 5,000 to 10,000 other U.S. Government agencies and dependents; 100,000 businessmen, contractors, etc., mostly non-defense-related.

Obviously, there is a long-range studying effort that you are going to do on this particular problem, but I wanted to make it very clear that I am not suggesting in any way any kind of withdrawal.

General Hill, I was a fan of General Wilhelm when he was the Southern Command CINC and he pointed out to me at that particular time we had 31 nations involved with your command, 30 of them were democracies. We have made so much progress since 1980, 360 million people, average age 14. In terms of the following issues: one, immigration, big-time issue for the United States; two,

drugs; three, energy, more especially with Venezuela and the strike—we get 17 percent of our energy supply from Venezuela; where my wife is complaining that we are paying $2 a gallon in regards to gasoline—terrorism and trade—these issues affect our daily lives and pocketbooks.

Yet, during the Balkans crisis we took away a lot of infrastructure from you, not from you personally but from the command, and have not put it back. Now we have the surge in regards to Iraq. My question to you is: Do you have the necessary funding and the infrastructure to do the job, with the thousands and thousands and thousands of miles in an area which we tend to ignore—not ignore; maybe benign, maybe not so benign, neglect. I am concerned about this because of the issues that I raise that directly affect the daily lives and pocketbooks of the American people.

General HILL. Your points are well taken in terms of the importance of the region to the United States and I completely concur with that. If I needed one thing, I need greater intelligence support. But if I go back to the Joint Staff, all of us need greater intelligence support. That comes forward in my integrated priority list to the Department, and I understand priorities. They are sitting to my right at this point.

Senator ROBERTS. Well, General, let me interrupt you, and I apologize for doing that. But I can introduce you to the chairman of the Intelligence Committee. I can promise you that you can get a full hearing from him, and if you want to come and visit the chairman of the Intelligence Committee we will be happy to take a hard look at that in your behalf, in conjunction, of course, with the chairman of the Armed Services Committee, who also serves on the Intelligence Committee.

General HILL. Sir, it really comes down to a matter of prioritization. I have enough assets within my theater to do the missions that I have been allocated to do. I could always use more, as General LaPorte could use more and Admiral Fargo.

Senator ROBERTS. I understand. I understand that.

General HILL. That is the point I was making.

Senator ROBERTS. Let me ask you a question in regards to Comandante Castro. Senator Akaka is no longer here, but he was with me in a trip to Cuba about, oh, a year and a half ago. The Comandante is 77 years old. I am concerned about post-Castro Cuba and I am concerned about trying to establish some tie of entrepreneurship, some tie so that democracy—I am not trying to get into the Cuban-American situation at all.

It worries me that, with tourism down there and the growing drug problem there, that we could possibly make some progress if we entered into some kind of a joint understanding on narcotics control. That has been proposed before. It gets into the State Department and some ideological questions. I know it is controversial. Do you have any feeling about this?

General HILL. Sir, Cuba along with many other countries in this region play in the drug trade. There is no doubt about that. If we could work out something where we could begin to get a handle on their part of the drug trade, it would be very useful.

Senator ROBERTS. Let me point out, not that I do not have any illusions about Castro, but what his number one concern was, as

I determined it to be during those meetings, those infamous 12- to 14-hour meetings where you do a lot more listening than talking, that he really was very much interested in that, because he is worried about his country and a drug cartel having undue influence in a post-Castro period.

I would like to visit with you about that and perhaps we can bring that up in the closed session.

General HILL. Yes, sir.

Senator ROBERTS. I yield back my time, Mr. Chairman.

Chairman WARNER. Thank you very much, Senator.

Senator Levin.

Senator LEVIN. Thank you, Mr. Chairman.

First, General LaPorte, there have been a lot of press reports that North Korea has restarted its Yongbyon reactor. I do not know that anybody has officially told us that. Is that in fact correct?

General LAPORTE. The reactor to the best of my knowledge has been restarted. As far as the reprocessing plant, we do not have any indication that that has been restarted.

Senator LEVIN. As far as moving the fuel rods from the storage facility to the reprocessing facility, has that been confirmed?

General LAPORTE. Could I address that in a closed session with you?

Senator LEVIN. Sure.

But you just indicated that as far as we know they have not yet resumed operation of the reprocessing facility?

General LAPORTE. Correct.

Senator LEVIN. You've been asked about the testimony of the Assistant Secretary of State, James Kelly, yesterday about the enriched uranium program of North Korea not being far behind the plutonium program. I think both Admiral Fargo and General LaPorte were asked about this. General LaPorte, you indicated you preferred to comment on that in closed session. The problem with that is that Assistant Secretary Kelly talked in open session. It is difficult, it seems to me, to argue that that is still a classified issue when the Assistant Secretary of State has made a statement on the record publicly about that issue.

I do not know quite how to go about that, Mr. Chairman. This would be your call on this. It is troubling to me that we do not get your testimony on that subject at a public hearing. Maybe you are being more circumspect, which is totally appropriate if he talked about classified information. But how is it still classified if the Assistant Secretary of State has commented publicly on the issue?

Chairman WARNER. Would you not think, Senator, that he could share his views in closed session and then you and I jointly could undertake to get such declassification as we felt appropriate?

Senator LEVIN. All right. If that is more comfortable for you, that is fine with me. But I do think we have to resolve that disconnect there. That would be fine, Mr. Chairman.

Now, Admiral Fargo, have we proposed allowing U.S. troops in the Philippines to participate in patrols?

Admiral FARGO. In patrols?

Senator LEVIN. Have we proposed to the Philippines that we participate in patrols with their army?

Admiral FARGO. We are talking to the Government of the Philippines right now about what kind of additional help we can provide. Last year we conducted Balikatan 02–1, which was an exercise that allowed us to train, advise, and assist. Certainly any exercise that we conduct would have to be in a non-hostile environment. So to answer your question specifically, we have not worked out an arrangement past the current effort that is underway, which is the security assistance we are providing to train these five modules, the light reaction companies, the battalions, provide night vision capability, and infuse intelligence and planning into their system, plus the other exercises, the large array of exercises that we have.

Senator LEVIN. So are you saying that if we make a proposal along this line it would be for patrols in a non-hostile environment? Is that what you are saying?

Admiral FARGO. If it is an exercise, and that is what we agree with the Government of the Philippines that we would like to go forward with, then an exercise would have to be in a non-hostile environment.

Chairman WARNER. That is a training exercise.

Admiral FARGO. A training exercise.

Chairman WARNER. For training.

Senator LEVIN. Admiral Fargo, in your written testimony you indicated that al Qaeda has given financial aid to a number of terrorist groups in the southern Philippines. Could you elaborate on any recent financial or technical support from al Qaeda to the Abu Sayyaf Group or to any other terrorist group in the Philippines?

Admiral FARGO. We believe that al Qaeda has had both a training and a financial relationship with the Abu Sayyaf Group.

Senator LEVIN. Would that be within the last few years?

Admiral FARGO. Within the last few years, yes, sir. I can give you more specifics in closed session.

Senator LEVIN. That would be fine.

Are we getting cooperation, Admiral, from Indonesia in terms of the war on terrorism and in terms of the investigation of the killing of two Americans last August?

Admiral FARGO. Senator, we are certainly getting cooperation on the war on terrorism. The cooperation with the Bali investigation has been excellent. It has led to the arrest of a number of Jemaah Islamiyah leaders, including the number three leader Samudra, and has certainly painted a much clearer picture for us of the operations of this group in Southeast Asia.

We are not happy with the cooperation we have received on the Papua investigation, the Freeport Mining investigation, and we are continuing to talk to the Indonesian Government about how they can improve that investigation.

Senator LEVIN. Thank you.

General Hill, just one question for you—my time, should I just finish with one question?

Chairman WARNER. Sure, go right ahead.

Senator LEVIN. At the time Hutchison Whampoa was the low bidder on a contract on port operation at the Panama Canal, there was a lot of concerns raised here by some members of the Senate about their connection with the Chinese Government. Has there

been any threat to our security, any problem with Hutchison Whampoa operating those facilities?

General HILL. No, sir, there has not.

Senator LEVIN. Thank you.

Thank you, Mr. Chairman.

Chairman WARNER. Thank you very much.

Senator Reed, any follow-up that you might have?

Senator REED. No, Mr. Chairman, thank you.

Chairman WARNER. Fine. Thank you. The committee will now commence its work in closed session in Hart 219. Thank you very much.

[Questions for the record with answers supplied follow:]

QUESTIONS SUBMITTED BY SENATOR WAYNE ALLARD

INDONESIAN MILITARY INVESTIGATION

1. Senator ALLARD. Admiral Fargo, on August 31, 2001, a number of American teachers in Papua, Indonesia, were attacked as they were returning from a picnic outing. Two Americans died, and several others were wounded. The attack occurred during the middle of the day, less than a half mile away from an Indonesian military position, and lasted for approximately 45 minutes. The Indonesian police immediately launched an investigation into the attack and later issued a report concluding that there was a strong possibility that the attack had been carried out by members of the Indonesian military (TNI).

After substantial U.S. diplomatic pressure, Indonesia's government ordered a new joint police/military investigation and agreed to allow the participation of the Federal Bureau of Investigation. The FBI investigators recently returned to the United States from Indonesia and reported that they had received marginal cooperation from the Indonesian government. For example, the team was only allowed to interview military personnel from the region in the presence of a senior Indonesian military officer and was not given complete access to the evidence from the attack.

I remain concerned about the lack of progress in the Indonesian investigation into this attack. The Government of Indonesia proved in the Bali investigation that it is capable of developing information on suspects and conducting a thorough investigation. However, in the August 31 attack on innocent Americans, it seems that the Indonesian government is not doing what it can to bring those responsible to justice. What is your assessment of the Indonesian government's determination to investigate this case and bring those responsible to justice?

Admiral FARGO. Thank you, Senator, for the opportunity to comment on this extremely important matter.

In short, I feel that the Government of Indonesia simply has not yet done enough to develop the evidence in this case, and to follow it wherever it leads.

In my meeting with Indonesia's Ambassador to the United States, Ambassador Soemadi, on 26 November 2002, I made clear the seriousness with which the United States Government regards this case. I informed him that it could affect our entire relationship. The initial evidence suggesting possible TNI involvement was especially disturbing. Since then I have continued to be fully supportive of the embassy's efforts with the Government of Indonesia to pursue justice in this case.

Unfortunately, Indonesia's government is still undergoing a very challenging transition to democracy after 32 years of authoritarian rule under former President Suharto. This transition has been made even more difficult by the lingering economic crisis, various incidents of regional violence, and more recently, challenges to the nascent democratic government from terrorism and extremist Islamic groups. I am hopeful from the recent prosecution and conviction of the TNI members who murdered Papuan independence leader Theys Eluay (even though the severity of the sentences was disappointing) that the government will continue to investigate this case and punish those found guilty.

I can assure you that we will not abandon our efforts to pursue accountability for this tragedy; we feel that the further development of democratic government and the safety of United States and other foreign citizens in Indonesia are inextricably tied to bringing this incident to a satisfactory resolution.

2. Senator ALLARD. Admiral Fargo, are you satisfied with the Indonesian military's cooperation with and participation in this investigation?

Admiral FARGO. No, Senator, I am not. Our constant position has been that the Indonesian military must fully support the government's efforts to investigate this case, and to follow the evidence wherever it leads. This includes sharing of evidence with investigators and providing uninhibited access to witnesses. We will continue to insist upon these and any other necessary conditions until the case is satisfactorily resolved.

3. Senator ALLARD. Admiral Fargo, in your prepared testimony, you expressed support for the International Military Education Training (IMET) funding provided by Congress last year for Indonesia. I agree that the IMET program is an important tool exposing Tentara Nasional Indonesia (TNI—Indonesia National Military) officers to democratic values and civilian leadership. Yet, I am troubled by allegations that personnel from the TNI were involved in the August 31 attack. Wouldn't you agree that the United States should withhold IMET funding until the Indonesian investigation has been completed and the TNI has been exonerated?

Admiral FARGO. Thank you, Senator, for your positive opinion of the ability of the IMET program to favorably influence the development of democratic values within TNI. Respectfully, however, I feel that withholding IMET is not only unlikely to result in a satisfactory conclusion to this investigation, but that it will also hinder Indonesia's democratic development as well.

Although TNI has already instituted significant reforms since the end of the New Order in May 1998 (reduction in the number of seats in the Legislature, divestment of the National Police, successive civilian Defense Ministers, a non-Army Supreme Commander, repudiation of their socio-political doctrine of "Dwifungsi" and the practice of inserting active duty officers in civilian government positions, and consistent support of the civilian government during three transitions of Presidential power), it still retains enough influence and access to resources to maintain its institutional integrity indefinitely, regardless of whether IMET is offered or withheld.

I believe that IMET should be considered an enabler, rather than a reward, that will give TNI the tools and relationships to develop their organization into a modern, professionally managed force that is capable of working with their civilian leaders and other nations in addressing some of the serious problems that confront our community of democracies today, such as terrorism, sectarian violence, international peacekeeping requirements, piracy and other transnational issues. It is important that Indonesia develop the capacity to play this role because of the potential influence it can wield as the largest country in the Association of Southeast Asian Nations (ASEAN) and the most populous Muslim-majority (and democratic) nation in the world. Because of this potential benefit, I believe it is as much in our interest to provide IMET as it is in Indonesia's to benefit from it. My experience has been that withholding educational opportunities from developing countries tends to perpetuate many of the dysfunctional, debilitating patterns of behavior that prevent them from advancing.

I agree that it is important to send a clear message that in spite of significant reform, there is still a need for improvements in TNI's accountability and contribution to Indonesia's developing democracy. Besides personally discussing key issues with senior TNI officers at bilateral and regional meetings, and offering capacity-building activities through Pacific Command's Theater Security Cooperation Program (TSCP), we also endorse such restrictive measures as: 1) vetting candidates for U.S. education and training for a history of human rights violations or other illegal activities, 2) forgoing combat-related training activities, and instead focusing on reform, humanitarian assistance, disaster relief, and peacekeeping, and 3) withholding full FMS (with exceptions only for areas supporting U.S. interests, such as counter-terrorism).

In summary, I feel that the best approach to achieving accountability, furthering democratic reform, and supporting U.S. interests with TNI is a "Balanced Approach" that both enables advancement and discourages recidivism.

QUESTIONS SUBMITTED BY SENATOR CARL LEVIN

NORTH KOREA—URANIUM-BASED NUCLEAR PROGRAM

4. Senator LEVIN. Admiral Fargo and General LaPorte, on March 12, 2003, Assistant Secretary James Kelly testified before the Senate Foreign Relations Committee that, "the enriched uranium issue, which some have assumed is somewhere off in the fog of the distant future, is not." He added, "It is only probably a matter of months, not years behind the plutonium program." Do you agree with this assessment?

Admiral FARGO. [Deleted.]
General LAPORTE. [Deleted.]

PHILIPPINES—AL QAIDA-ABU SAYYAF GROUP LINK

5. Senator LEVIN. Admiral Fargo, in your written testimony you state, "bolstered by financial and technical support from al Qaeda, the Jemaah Islamiyah (JI) and the Abu Sayyaf Group (ASG) in the southern Philippines have demonstrated their capability to attack U.S. and Western interests." Can you elaborate on recent financial and technical support from al Qaeda to the ASG?
Admiral FARGO. [Deleted.]

6. Senator LEVIN. Admiral Fargo, do we have fresh intelligence linking the ASG to al Qaeda or Jemaah Islamiyah?
Admiral FARGO. [Deleted.]

COLOMBIA—WORLDWIDE TERRORIST GROUPS

7. Senator LEVIN. General Hill, the Department has requested authority to support use of counterdrug funding in Colombia and throughout the region to support a unified campaign against illicit narcotics-trafficking, to support a unified campaign against activities by organizations in the Americas hemisphere actively engaged in, or designated as, terrorist organizations.
In your written statement you assert, to complement homeland security efforts and seal the seams through which terrorists infiltrate, we must take comprehensive measures in our region to combat international terrorism. You also state that Middle Eastern terrorist groups to include Hamas, Hizballah, and Islamiyya al Gammat have networks and support structures throughout the region. If you were granted this authority, would you use the counterdrug funding to fight the Middle Eastern groups you listed?
General HILL. Terrorist organizations and drug trafficking organizations are frequently one and the same. Because it is difficult to meaningfully separate their activities it makes sense to deal with them holistically, using all available resources without the necessity for case-by-case analysis of a group's specific activities. National Security Policy Directive–18 and the statutory authorities in the Fiscal Year 2003 Defense Appropriations Bill allow us, in Colombia, to use counterdrug funds to support the Colombian Government's efforts against U.S.-designated terrorist organizations. These same authorities outside of Colombia against the activities of other U.S.-designated terrorist organizations would be beneficial.

8. Senator LEVIN. General Hill, what other international terrorist groups fall under the definition of "actively engaged in . . . terrorist organizations"—the Irish Republican Army, the Basque separatists?
General HILL. [Deleted.]

9. Senator LEVIN. General Hill, do you believe that the priority for using counterdrug assets should be fighting the narcoterrorists indigenous to Colombia and the other countries we are assisting?
General HILL. I believe the priority of use for counterdrug resources should be counterdrug missions. However, we recognize that the activities of terrorist organizations cannot be meaningfully separated from the activities of narco-trafficking organizations. Therefore, if the organizations are one and the same, there are efficiencies to be gained by conducting both counterdrug and counterterrorism missions with the same resources.

10. Senator LEVIN. General Hill, if so, how would you ensure that counterdrug funding was used primarily to fight drugs, and the insurgents who have the greatest role in producing and exporting those drugs?
General HILL. Counterdrug authorities 1004 and 1033 mandate end-use monitoring and reporting. Under these counterdrug authorities, we track the DOD funding and the intended use of equipment, training, and other USG activities that support Colombian and other participating nation counternarcotics units responsible for fighting narco-terrorism. USSOUTHCOM employs rigid monitoring and reporting to ensure counterdrug funding is applied properly and against those insurgents who produce, export, and traffic drugs.

COLOMBIA—ERADICATION

11. Senator LEVIN. General Hill, the White House reported 2 weeks ago that coca cultivation in Colombia has decreased by 15 percent, the first time since we began the current eradication program 3 years ago. A February 28 Washington Post account states that the drop in cultivation occurred in southern Colombia where most of the herbicide spraying is focused and that cultivation has increased in the east. In addition, cultivation has increased slightly in Peru and Bolivia. In Bolivia, President Sanchez de Lozada is under pressure to allow an increase in legal coca cultivation. Do you agree with the White House and Washington Post assessments?

General HILL. Yes. According to the Interagency Assessment of Cocaine Movement eradication in four of Colombia's key coca growing areas reduced the coca crop 15 percent at the end of 2002, the first decline observed in Colombia's crop in a decade. The Government of Colombia with support from the Department of State's Narcotics Affairs Section (NAS) reportedly sprayed over 38 percent more area in 2002 than in 2001, resulting in reductions in coca production in the Putumayo, Narino, Norte de Santander, and Caqueta growing areas. The crops shifted back toward Guaviare to include Meta and Vichada with substantial new cultivation. Reportedly, 54 percent of the Colombian coca crop is being cultivated in this region; up from 33 percent in 2001. In 2002, Peru had its first increase since 1995 with 4,100 hectares of new cultivation. Bolivia's eradication teams were also unable to keep pace with new plantings in the Chapare resulting in a cultivation rise of 23 percent in 2002. The pressure on Bolivian President Sanchez de Lozada to increase the legal coca cultivation limit is coming from the Leftist Movement Towards Socialism (MAS) party being led by Evo Morales, who is supported by the cocaleros. An agreement to increase legal cultivation (presently restricted to the Central Chapare region) for each small farmer is under debate.

12. Senator LEVIN. General Hill, what are we doing to prevent cultivation from popping up in places where we are not eradicating?

General HILL. From a military perspective, we have encouraged the Colombian military to mass their military operations, sequentially and within their capability, to secure ungoverned areas. This will allow the Colombian government to establish governance, enforce the rule of law, foster alternative development and bring other institutions and services to those areas. We are also training the Colombian military to create civil affairs and information operations capabilities that can persuade and assist the applicable Colombian population not to participate in coca cultivation, processing, and trafficking activities.

13. Senator LEVIN. General Hill, will we be able to maintain success in southern Colombia over the long term?

General HILL. Long-term success will require an improved, coordinated, and enduring interagency and regional effort sufficient to overcome 40 years of violence, criminal activities, and social inequities. Additionally, increased personal security for inhabitants, a functioning judiciary, visible government presence, and viable legal economic opportunities will help to ensure success in southern Colombia.

14. Senator LEVIN. General Hill, how are we addressing possible displacement to Bolivia and other neighboring countries?

General HILL. To support the reduction of illicit activities, SOUTHCOM has a permanent Military Information Support Team (MIST) assigned to Bolivia. The MIST team supports the objectives of the Bolivian U.S. country team and SOUTHCOM to prevent illicit trafficking. To improve Bolivia's capabilities to counter illicit trafficking, there have been six Special Operation Force deployments in the past 12 months and five Security Assistance Teams in the past 7 months to Bolivia. USSOUTHCOM works closely with the Andean Ridge countries to support their drug reduction efforts to contain the problem. To assist in containment, USSOUTHCOM supports the regional alternative development efforts of the State Department's Bureau for International Narcotics and Law Enforcement Affairs and the U.S. Agency for International Development.

COUNTERNARCOTICS BRIGADE

15. Senator LEVIN. General Hill, in your written testimony you state that the training of the Counter-Narcotics Brigade and the establishment and training of a Commando Battalion to pursue enemy leadership have already produced results. You are also conducting training in the Arauca Province to help the Colombian military protect valuable infrastructure, including the Cano Limon oil pipeline. What

concrete results have the Colombians achieved to date as a result of this training, and what are the measures of effectiveness that you are using to determine military success?

General HILL. The immediate results of the mission may be observed in recent operations conducted by the Colombian military. Since the initiation of expanded authorities for Colombia in October 2002, the Colombian military has completed the following significant military operations:

[Deleted.]

All of these actions reflect progress in several of the training objectives for USSOUTHCOM's mission in Colombia. In addition, training of the Commando Battalion continues on track, with an expected operational capability in April 2003.

As for the overall measurements of effectiveness, in the initial phases of the expanded mission in Colombia (commenced in January 2003), measuring success will be based on the completion of USSOUTHCOM-sponsored training, equipping, and support of specified Colombian military units, combined with measuring the demonstrated capabilities of these supported units.

SPECIAL OPERATIONS TRAINING

16. Senator LEVIN. Admiral Fargo, in your written testimony you state that through the Special Operations Command Pacific and Joint Task Force-510, your command has the ability to deploy special operators anywhere to combat terrorism. You add that "This capability, however, depends on building and maintaining relations with supporting allies and friendly nations. We build and maintain these relations through our Joint Combined Exchange Training (JCET) and other Theater Security Cooperation Programs (TSCP)." How important are the SOF training missions in the various countries within your area of operations in terms of: 1) maintaining readiness; 2) deploying troops into familiar and unhostile environments; and 3) gaining participation of other countries in operations or exercises that are important to you?

Admiral FARGO. SOF training deployments foster combat-ready forces, regional knowledge, cross-cultural understanding, and national alliances.

To support theater contingency and operation plans, U.S. SOF must be capable of conducting sustained combat operations in rugged environments, diverse terrain, and dense urban areas. Maintaining requisite skills is a never-ending challenge, requiring U.S. SOF to refine theater-specific tactics, techniques, and procedures during in-theater deployments.

Unlike training in the Continental United States, in-theater deployments offer first-hand knowledge of theater-specific operational conditions. During these deployments, SOF work hand-in-hand with foreign nation counterparts, building interoperability, sharpening language skills, and exchanging solutions to operational challenges. They accomplish these mission-essential activities "in-country," demonstrating America's moral character, military power, democratic principles, and economic might.

In addition to enhancing combat skills, in-theater deployments hone SOF command and control functions, support relationships, and collateral mission activities. SOF planners, logisticians, intelligence analysts, civil affairs and psychological operations specialists, communicators, and medical personnel routinely participate in SOF deployments. While doing so, SOF subject matter experts work with host nation counterparts and civilians, enhancing regional expertise. Such interaction is invaluable when coordinating forward staging bases or executing short-notice deployments.

Regional access and alliances are two additional SOF deployment by-products. SOF events have created inroads with previous belligerents, strengthened relationships with burgeoning friends, and nurtured historic partners. SOF deploy to Laos, Vietnam, and Cambodia, training local agencies to disarm land mines and interdict drug smugglers. SOF are training in India, generating relationships with future allies. Pending appropriate authorization, U.S. SOF are poised to re-initiate training with select Indonesian and Burmese military units. Given rising international terrorism and pressing requirements to obtain counter-terrorism intelligence, SOF training deployments and related host nation interactions will soon become even more valuable.

LANGUAGE TRAINING

17. Senator LEVIN. Admiral Fargo, in your written testimony on intelligence assets you state, "it is essential that the Defense Language Institute develop tests for

languages/dialects that accurately assess language skills of service personnel." Have you encountered problems with assessing language skills, identifying who has them, and retaining personnel and proficiencies?

Admiral FARGO. Yes, we continue to have problems assessing language skills and also have problems identifying speakers of Operation Enduring Freedom (OEF) languages and dialects. The Defense Manpower Data Center's (DMDC) Automated Language Finder (ALF) database currently does not track speakers of six languages and dialects required for OEF namely: Cebuano, Chavacanno, Maranoan, Maguindanoan, Tausug and Yakan. Further, no language proficiency tests currently exist for 18 PACOM OEF languages/dialects: Achenese, Balinese, Bengali, Cebuano, Chavacanno, Ilocano, Javanese, Malay, Maranoan, Maguindanoan, Pushtu, Punjabi, Singhala, Sudanese, Tamil, Tausug, Urdu and Yakan. It is not cost-effective to maintain cryptolinguist communities for all languages and dialects required for OEF. However, it is essential that speakers of OEF languages and dialects be identified and tested so that short notice requirements can be filled by speakers with known proficiencies. Retention of linguists is directly related to use of their language skills. Retention of linguists who use their language skills in support of operations and planning equals or exceeds the retention of non-linguists. Turnover and loss of linguists who do not use their language skills is significant.

QUESTIONS SUBMITTED BY SENATOR JACK REED

ADVANCED CONCEPT TECHNOLOGY DEMONSTRATIONS

18. Senator REED. Admiral Fargo, General LaPorte, and General Hill, the Department of Defense has established a set of programs called ACTD which are designed to help accelerate the adoption of new technologies by operators. This largely successful program brings together developers and warfighters and has successfully transitioned some systems, including unmanned aerial vehicles (UAV), into current operations. How are you working with the Office of the Secretary of Defense's Advanced Concept Technology Demonstration program to test and evaluate new technologies and the new operational concepts that they enable?

Admiral FARGO. The United States Pacific Command continues to lead the way among regional combatant commanders using Advanced Concept Technology Demonstrations to operationalize science and technology for the warfighter. Today we are involved in 18 active ACTD projects, more than any other theater command. We have distributed the transformation workload across the whole theater—almost every Service Component, Joint Task Force and Sub-Unified Commander, as well as each of my Staff Directors, is responsible for executing one or more ACTD.

Investing our time in ACTDs provides an ideal way for my forward-deployed forces to confront emerging technologies early and influence the way they will be introduced into the joint force. ACTDs are organized as projects, and so benefit from having crisp objectives, schedules, budgets and deliverables. They demand partnerships between technical project managers, transition managers, and my operational project managers, each with a clear role in the project's ultimate successful demonstration and transition. These projects encourage my joint force to create new tactics, techniques, procedures and concepts of operations, a useful military product with value often exceeding that of the new technology. By applying project management discipline to ACTDs my forces are able to assess the military utility of these technologies and concepts within a fixed time.

In addition, U.S. Pacific Command integrates its Joint Experimentation and Transformation initiatives with the Office of the Secretary of Defense's Advanced Concept Technology Demonstration program. Adhering to the philosophy of "experiment while we exercise", Pacific Command actively engages in experimentation during all its joint training exercises, such as Cobra Gold and Tandem Thrust with our coalition partners, and Terminal Fury with our own joint forces. In conjunction with our special focus Command and Control Exercises (C2Xs) Pacific Command's joint exercise program provides the operational venue for hosting and applying advanced concept technology demonstrations, other technology initiatives, and advanced procedures to quickly add new capabilities to our joint forces. Pacific Command also hosts the Joint Warrior Interoperability Demonstration for its second year, providing another international opportunity to apply Advanced Concept Technology Demonstrations to an operational scenario for experimentation and test. Timing of all our exercises allows experimentation and spiral development, characterized by hands-on feedback from the operators and valuable leave-behinds for the joint warfighters after assessment. This rapid spiral transformation over the past 3

years, currently, and in the coming years, puts capability in user's hands years ahead of traditional acquisition timelines.

Through funding support from the Office of the Secretary of Defense for Advanced Concepts Technology Demonstrations, Pacific Command has integrated a joint fires capability into the headquarters and each of its primary Joint Task Forces for addressing time-sensitive and time-critical targets with an initiative called the Automated Deep Operations Coordination System. We've extended hospital diagnosis, treatment, and surgery to the front lines with an initiative called Joint Medical Operations-Telemedicine. We're simplifying logistics tracking and host nation support with a multinational equipment and supplies tracker called Coalition Theater Logistics.

Joint Task Force Wide Area Relay Network (JTF WARNET) is a Transformation Initiative of the Office of the Secretary of Defense (OSD) Advanced Systems and Concepts (AS&C) and Commander U.S. Pacific Command (USPACOM) resulting from the Extending the Littoral Battlespace (ELB) ACTD. The ELB ACTD demonstration phase completed in fiscal year 2001 with its major system demonstration exercise Kernel Blitz (Experimentation) (KBX). As a result of the advanced warfighting concepts and capabilities demonstrated, PACOM and OSD AS&C restructured the ELB ACTD fiscal year 2002 and 2003 transition phase as the JTF WARNET initiative to enable joint tactical level digital connectivity and command and control interoperability. In April 2002 the Joint Requirements Oversight Council approved JTF WARNET to build, test, and develop Concepts of Operations (CONOPs) and Tactics, Techniques and Procedures (TTPs) to deploy the first prototype to PACOM operational forces. All services, Special Operational Command, OSD, PACOM and Joint Forces Command are partnered in the JTF WARNET initiative.

In fiscal year 2002 and 2003, PACOM Component forces have assisted in setting requirements and developing CONOPs and TTPs for employing the JTF WARNET prototype. In June through September of 2003 PACOM Component forces will assist in testing and evaluating JTF WARNET in a series of field exercises. In fiscal year 2004 JTF WARNET capabilities will be deployed in Western Pacific and will participate in exercise Cobra Gold 04.

The Joint Tactical Radio System Joint Program Office has been named as the JTF WARNET Transition Manager for fiscal years 2004 and 2005. PACOM has been instrumental in developing the JTF WARNET Transition Plan that is completing final staffing for approval. JTF WARNET products will transition into 23 programs of record. The JTF WARNET fielding and transition efforts are fully funded.

Additionally, we're taking control of the limited frequency bandwidth available for joint operations and dynamically controlling which applications and operational priorities are allocated that bandwidth. This initiative is expected to become the Information Flow Analysis and Control Advanced Concept Technology Demonstration beginning in fiscal year 2004, as a result of its experimental application and force enhancement throughout Pacific Command units. To help Pacific Command achieve more accurate planning with specific desired results, we're working closely to bring Theater Effects Based Operations and Joint Networked Fires and Effects to the range of Advanced Concepts Technology Demonstrations that have modernized our force capabilities so rapidly within the past 3 years.

The U.S. Pacific Command continues to work closely with the Office of the Secretary of Defense for Advanced Concepts Technology Demonstrations to provide a true operational environment—not a battle lab—for mature and promising technologies and procedures. That office's support of Pacific Command initiatives is a sound investment in rapid spiral transformation of our joint and combined operational forces.

General LAPORTE. Since the inception of the ACTD and to this day USFK works directly with the Principal Assistant to the Deputy Under Secretary of Defense for Advanced Systems and Concepts (DUSD–AS&C), Dr. Charles Perkins. Dr. Perkins and USFK communicate directly and regularly via email and telephone. These communications are supplemented with frequent face-to-face meetings in Korea.

General HILL. We are working very closely with the Deputy Under Secretary of Defense for Advanced Systems and Concepts in the planning and execution of Advanced Concept Technology Demonstration programs. At this time, we are the operational sponsor for three major technology demonstrations in our geographical area of responsibility. One program is developing the capability to find targets of interest such as narco-terrorist camps, supporting infrastructure, and associated lines of communications hidden under the dense foliage of the Andean Ridge. This technology will enable key operational capability in the Command's most critical region and other similar operational environments in the world. Another technology demonstration is designed to rapidly collect high-resolution terrain mapping from un-

manned aerial vehicles. This program will allow us to explore high-definition elevation data to improve the effectiveness and survivability of forces entering unfamiliar or hostile environments. Also, we are teaming with the U.S. European Command to undertake a technological demonstration that will provide protection of key infrastructure and personnel against human-carried bombs. This teaming arrangement will ensure a broad set of fixed and mobile requirements applicable to military and civilian agencies. In the future, we expect to continue our support of these Advanced Concept Technology Demonstrations. The Deputy Under Secretary of Defense for Advanced Systems and Concepts provides tremendous support through technology demonstrations to meet my near, mid and long term operational needs. Advanced Concept Technology Demonstrations are absolutely necessary to develop operational capability in a methodical, cost-effective and expeditious manner.

SCIENTIFIC ADVISORS

19. Senator REED. Admiral Fargo, General LaPorte, and General Hill, you are constantly being faced with new technological threats (such as cyberattack, adaptation of cheap commercial technologies for military purpose, chemical and biological attack, etc.) as well as opportunities to apply new revolutionary technologies to address operational requirements. How are you provided with scientific and technical advice to support your missions and operations?

Admiral FARGO. We receive advice about both threats and opportunities arising from emerging science and technology from many sources. At the first level, I have my staff of senior professional military officers who represent all the services, and branches of the services. These men and women are subject matter experts in the various areas of modern warfare, and as professionals they maintain their connections and currency in the fields where they are subject matter experts. Embedded in my staff at PACOM I have representatives from the Office of Naval Research, Defense Intelligence Agency, Central Intelligence Agency, Defense Threat Reduction Agency, the Defense Information Systems Agency, and others. I also have a Chief Information Officer to keep me apprised of the latest threats and opportunities in Command, Control, Communications, Computers, and Intelligence (C^4I). I have an office of Defense Cooperation in Armaments to monitor science and technology in the Asian-Pacific region. Finally, I have a Science and Technology Advisor (STA) whose purpose is to exchange information, and to coordinate projects and policy with the national, international, and Department of Defense science and technology community.

The STA maintains close working contact with each of the offices listed above, and with the science advisors for each of my service components and sub-unified commands within the region. This close relationship encourages a free flow of scientific and technical information between and among the commands, and in particular encourages the development of limited objective experiments and demonstration projects that can quickly assess the military utility of emerging technologies. By confronting new technologies early in a forward military setting, we are able to take the lessons away rapidly in terms we can use, namely improved concepts of operations, tactics, techniques, and procedures. When these lessons help influence acquisition, so much the better.

My STA stays current in many of the issues concerning Department of Defense science and technology issues, coordinating with the OSD, and the Service science and technology organizations and laboratories. He also acts as conduit for international cooperation for various ongoing and planned projects. For instance, the STA brokered the first international agreement for cooperative development of an ACTD with Singapore on the SPARTAN unmanned surface vehicle. This improves our theater security by providing unmanned vessels interoperable by either navy to support escort of our vessels in the straits of Malacca. The Science and Technology Advisor, along with my Logistics Directorate, also developed an international cooperative development arrangement with Australia for the Coalition Theater Logistics ACTD. Since then we have begun to explore developing similar cooperative projects with Japan, Korea, India, and Malaysia.

PACOM is also taking the initiative to develop responses to chemical and biological attacks. In addition to the ongoing Restoration of Operations ACTD, my Plans Directorate has developed a roadmap and is pursuing technology and projects that can reduce the effects of chemical/biological warfare attacks.

PACOM's focus on operationalizing science and technology has given me the ability to build an incomparable team of advisors from all the services to address science and technology challenges in the region.

General LAPORTE. USFK receives scientific and technical advice through a number of sources: The Army Materiel Command provides a Science Advisor through Army Materiel Command-Field Assistance in Science and Technology (AMC–FAST); the Defense Threat Reduction Agency (DTRA) has an Liaison Officer (LNO) within the command; the Defense Information Systems Agency (DISA) has an office in theater; and the Program Executive Office for Command Control and Computers Tactical (PEOC3T) also maintains a presence in Korea. USFK also receives assistance from the USPACOM Science and Technology Advisor (STA). In the area of modeling and simulations, USFK receives effective technical support from throughout the DOD. The Defense Modeling and Simulation Office (DMSO) maintains a full time liaison officer at the Korea Battle Simulation Center (KBSC). Additionally USJFCOM, USSTRATCOM, and the modeling and simulation agencies of all four services provide the latest in simulations and associated links to joint and service C^4ISR systems.

General HILL. I receive scientific and technical advice to meet my missions and operations through the Office of the Command's Science and Technology Advisor. My pool of science and technology personnel provides me with extensive Air Force, Army, Navy, and industrial experience. In fact, the U.S. Army Materiel Command—Field Assistance in Science and Technology, the U.S. Navy Office of Naval Research, and the Deputy Under Secretary of Defense for Advanced Systems and Concepts assist with scientific and developmental engineering manpower to the Command. The advisors identify, analyze, consolidate and coordinate technical solutions to operational requirements. In addition, they actively seek new technologies to improve our operational capability. Their goal is to achieve a balance between the aggressive pull of operational requirements and the push of technical innovations to include transformational activities. My advisors maintain close liaisons with the scientific and technical community at large from the Office of the Secretary of Defense, national agencies, Services, industry, academia and our participating nations. Examples of support include the application of an innovative foliage penetrating radar to current operations; initiatives to improve wide area maritime surveillance, detection and monitoring for tactical riverine operations, and bio-terrorism; and, the development of a red team program in U.S. Southern Command.

20. Senator REED. Admiral Fargo, General LaPorte, and General Hill, how are you connected to the various Service technology development organizations in order to address quick response technology needs and questions?

Admiral FARGO. Pacific Command is connected with the various Service technology development organizations, and other organizations that collectively make up the national research enterprise, through many layers of staff interaction. My staff, which is organized by operational discipline, is made up of professional military officers who have deep experience within both their Services and their military specialties. They often maintain contact with Service science and technology organizations and laboratories to develop quick-response solutions to current needs. My staff is augmented with liaison officers from many Service and Department of Defense agencies who assure that their products and expertise is known to Pacific Command, and that Pacific Command's emerging challenges are known to their home laboratories. My staff includes a Chief Information Officer (CIO) who is a national leader in the current discussions about the future architecture of world-wide command information infrastructure. Finally, my staff also includes an office of the Science and Technology Advisor who coordinates a broad program of technology projects, and maintains a network of connections to address quick response technology needs and questions.

Each of my theater Service components has a Science and Technology Advisor (STA) who maintains close ties with their Service technology development centers. The STA's and CIO's offices maintain close working relationships with the theater Service component STAs as well as maintaining their own ties within the Navy and Air Force technology communities. This group collaborates on theater projects employing new technology from various Service laboratories or technology centers. Three such recent projects have explored the use of written and spoken language machine translators for operational use, developing and testing a system that manages the limited bandwidth available to our Joint Task Forces at sea, and developing a counter-sniper weapons system. It is important to emphasize that technology employed without a developed concept of operations (CONOPs) or tactics, techniques and procedures (TTPs) provide nothing the operator in the field can use. These Limited Objective Experiments provide the operators the opportunity to develop the CONOPs and TTPs while determining the military utility of the technology. They then can provide improvement feedback for the project. In the case of the language translation devices, and the bandwidth management, the real world operations re-

sulted in significant upgrades to improve the system. If the project is successful then these experiments will lead to the formulation of an ACTD.

In addition to the ties to the Service technology developers, the STA staffs are tied into the national technology agencies, such as the Defense Threat Reduction Agency, the Defense Information Systems Agency, and the Defense Advanced Research Projects Agency, as well as the Office of the Deputy Under Secretary of Defense for Science and Technology and the Assistant Secretary of Defense for Command, Control, Communications, and Intelligence.

General LAPORTE. Army Materiel Command-Field Assistance in Science and Technology (AMC–FAST) has a formal staff of "Quick Reaction Specialists" that receive requests from the field and respond back with solutions. United States Forces Korea (USFK) is intimately tied in with this staff and is currently receiving support through two separate programs within AMC–FAST. USFK also maintains close liaison with Air Force Operational Test and Experimentation Command, the Air Armaments Center, and the National Assessment Group. USFK and USJFCOM have also established a strong program of interaction on developing projects.

General HILL. I am connected to the various Service technology development organizations through the working interfaces between my science advisors and agencies within the U.S. Army Research Laboratory and U.S. Army Communications-Electronic Command. My advisors also interact with the U.S. Navy technology development offices such as the Office of Naval Research and Naval Sea Systems Command. In addition, the Deputy Under Secretary of Defense for Advanced Systems and Concepts provides U.S. Southern Command with links to other technology organizations such as the Defense Advanced Research Projects Agency and the Defense Threat Reduction Agency. This connectivity provides forums to address my operational shortfalls through special joint initiatives, Service programs, and Advanced Concept Technology Demonstrations.

21. Senator REED. Admiral Fargo, General LaPorte, and General Hill, how can that connectivity be improved?

Admiral FARGO. The Nation's research enterprise is a vast and dynamic endeavor that involves universities, industry, national and service laboratories, and Department of Defense funding and policy agencies. This enterprise represents a tremendous reservoir of talent that can reasonably be applied to the issues we face in U.S. Pacific Command, when we are effective at attracting and focusing their attention. We do a good job of this by using multiple channels to communicate with OSD. We make our needs known through my Integrated Priority List and through persistent contact with the national research enterprise at all levels.

Overall, I am satisfied and our process is working well. Improved connectivity with the Nation's research enterprise would mean more effective joint technologies for U.S. Pacific Command. This effort would aid in bridging the technological gap between the Services and between us and our coalition partners. We continually strive to broaden our scope of involvement with the national research enterprise. This year alone we have hosted the Deputy Undersecretary of Defense for Science and Technology, and leadership from the Defense Advanced Research Projects Agency and the Defense Threat Reduction Agency. U.S. Pacific Command maintains a partnership with both of these agencies including experimentation in unmanned vehicles, and a new U.S. Pacific Command focal role addressing chemical and biological weapon mitigation.

General LAPORTE. The Army Materiel Command-Field Assistance in Science and Technology (AMC–FAST) Science Advisor position in Korea has been vacant since October 2002. Filling this position would be a significant improvement. Also, AMC–FAST is an Army organization; providing USFK a Navy and Air Force equivalent would be of significant value to take advantage of synergistic efforts within all of Department of Defense.

General HILL. I am satisfied we are on-track in the way we work with developmental commands within the Department of Defense, with Services and, with the other Regional Combatant Commands (RCC) to address operational and technology challenges. I have directed my science and technology staff to routinely coordinate with, and leverage the technical accomplishments of other commands and agencies. In order to improve connectivity, we are increasing information exchanges and interaction at every level of DOD, Service, RCC and non-defense agencies to ensure USSOUTHCOM's unique mission needs are considered during planning, resource allocation and execution phases. I have also directed that the staff be more proactive in identifying both potential and mature technical solutions to solving the command's requirements. Through active interface, in an increasingly collaborative environment, we are seeking to leverage the success other RCCs are having in any given area. Finally, I have recently been able to increase my science and technology

staff, having them report directly to a general officer whose responsibilities include seeking new and transformational methods wherever they exist for routine and operational missions.

[Whereupon, at 12:04 p.m., the committee adjourned.]

DEPARTMENT OF DEFENSE AUTHORIZATION FOR APPROPRIATIONS FOR FISCAL YEAR 2004

TUESDAY, MARCH 18, 2003

U.S. SENATE,
COMMITTEE ON ARMED SERVICES,
Washington, DC.

BALLISTIC MISSILE DEFENSE

The committee met, pursuant to notice, at 9:35 a.m., in room SD–106, Dirksen Senate Office Building, Senator John Warner (chairman) presiding.

Committee members present: Senators Warner, Allard, Sessions, Levin, Reed, Akaka, Bill Nelson, E. Benjamin Nelson, Bayh, Clinton, and Pryor.

Committee staff member present: Judith A. Ansley, staff director.

Majority staff members present: Brian R. Green, professional staff member; William C. Greenwalt, professional staff member; Ambrose R. Hock, professional staff member; and Thomas L. MacKenzie, professional staff member.

Minority staff members present: Richard D. DeBobes, Democratic staff director; Kenneth M. Crosswait, professional staff member; Richard W. Fieldhouse, professional staff member; and Peter K. Levine, minority counsel.

Staff assistants present: Michael N. Berger, Andrew W. Florell, and Jennifer Key.

Committee members' assistants present: John A. Bonsell, assistant to Senator Inhofe; Jayson Roehl, assistant to Senator Allard; Arch Galloway, II, assistant to Senator Sessions; James P. Dohoney, Jr., assistant to Senator Collins; Elizabeth King, assistant to Senator Reed; Davelyn Noelani Kalipi and Richard Kessler, assistants to Senator Akaka; William K. Sutey, assistant to Senator Bill Nelson; Eric Pierce, assistant to Senator E. Benjamin Nelson; Todd Rosenblum, assistant to Senator Bayh; Andrew Shapiro, assistant to Senator Clinton; and Terri Glaze and Andy York, assistants to Senator Pryor.

OPENING STATEMENT OF SENATOR JOHN WARNER, CHAIRMAN

Chairman WARNER. Given the historic moment, I think that each Senator should consider using a minute or two for an opening statement, if he or she so desires, before we get to the particulars of this very important hearing.

I would like to say I was very privileged last night to be in attendance with my colleague, Senator Levin, and other leadership from the Senate and House as the President spoke with us in the Oval Office—that is, the Cabinet room, prior to his addressing the Nation at 8 o'clock. I have unhesitatingly given my support to this courageous President throughout this controversy for many months.

His address to the Nation last night was very clear, to the point, and entirely consistent with his views as Commander in Chief and the responsibility he has under our Constitution. It is my judgment that he is acting consistent with a series of U.N. resolutions, most particularly 1441. He has put together a coalition of nations. While not as large as that in 1991, in my judgment, it is equally significant.

There were statements to the effect that we are going without the support of Muslim nations. That is incorrect. A number of those nations are providing us with port facilities, air bases, overflight rights. It is clear that the preponderance of the nations in that region of the world are in support of the actions that we, Great Britain, and Australia, with our troops, are undertaking to eliminate the weapons of mass destruction.

I find certainly in my State and across the Nation a growing support among our people for the actions taken by the President. That is as it should be. It is my hope and expectation that those of us here on Capitol Hill, who have expressed a diversity of opinions, will now close ranks behind the men and women of the Armed Forces, and indeed the Commander in Chief, as he undertakes to carry forward this mission in the cause of freedom.

Senator Levin, do you care to say a few words?

Senator LEVIN. I was not planning on doing so, Mr. Chairman, but since you have invited us to do so, let me just add a word perhaps similar to what I expressed yesterday on the floor of the Senate at great length.

The President has now decided to end the diplomatic effort. Those of us who have questioned the administration's approach, including this Senator, will now be rallying behind the men and women of our Armed Forces to give them the full support that they deserve, because it seems certain that we will soon be at war.

The question of the approach was based on a number of factors, including the fact that we have invoked the resolutions of the Security Council, including 1441, as the basis for proceeding, and yet now ignore the apparent unwillingness of the Security Council to support military action at this time. It is obvious that nine members of the Security Council were not able to be aligned by the administration to support a second resolution, even though the President said there would be a vote just a few days ago.

But that is water over the dam. Last October, a majority of both houses of Congress voted to authorize the President to use military force with or without the express authority of the United Nations. I disagreed with that decision. I offered an alternative. But the overriding fact is that this democracy functions through debate and through decision. The decision to give the President wide authority was democratically arrived at.

So now we have courageous men and women in harm's way, who are not just carrying out an order of the Commander in Chief with bravery and the highest form of professionalism, they are also implementing the outcome of that democratic debate in Congress. This Nation honors and protects democratic debate and the resolution of that debate.

So I am sure that all of us feel, regardless of what position we took on whether or not to go with or without the express authority of the United Nations, as the President said he would request, those men and women should and, I believe, do know—that they have the full support and the fervent prayers of all the American people as they carry out their missions.

Chairman WARNER. Thank you.

We will just go back and forth.

Senator Allard.

Senator ALLARD. Mr. Chairman, thank you. First of all, I would join you in your comments. I do appreciate Senator Levin's comments that now we join together after we have had a fervent debate on the need to and how we deal with the Iraqis and Saddam Hussein. We have historically, in this country, had our debate and then joined together to support the men and women overseas who are putting their lives on the line for freedom and the security of America.

Many of us in policy decisionmaking really do appreciate their commitment. I have a lot of confidence in their leadership and a lot of confidence in their equipment and getting them supplied and prepared over there to meet the coming challenges, I think, in the next few days.

As chairman of the Strategic Forces Subcommittee, Mr. Chairman, I plan to closely follow the development of our vital defenses. I think they are important to the future mission of all branches of the military. I have been saying for years that the missile threat to this Nation is here and we must be prepared. I think this was confirmed by the Director of Central Intelligence, George Tenet, during our hearing on September 12. He was asked if North Korea had a missile capable of hitting the West Coast of the United States. Director Tenet stated, very unambiguously at the time, that the declassified answer is yes, they can do that.

North Korea is not the only country of concern that is developing long-range ballistic missiles. This threat is growing and we remain extremely vulnerable to the missile attack. That is why the December announcement by the President to deploy a missile defense system is so important. The national security of this Nation is at risk and we must be ready.

I also want to thank all the witnesses for being here. I know you have a lot on your plate at this time and I thank you for taking the time to share with us your thoughts on this important issue.

Chairman WARNER. Senator, I thank you for suggesting, as did Senator Levin, that we have a full committee hearing. In due course, I will turn the chair over to you as the subcommittee chairman.

Senator ALLARD. Thank you.

Chairman WARNER. Are there other colleagues who would like to make a brief opening statement relative to the matter other than what is before the committee?

Yes. Go ahead, Senator Reed.

Senator REED. Just briefly, Mr. Chairman.

Like of all of us, we are expecting the commitment of military forces. I have every confidence that they will prevail. That confidence is borne out by having associated with many of the commanders as classmates and friends for 30 years. They are extraordinary Americans and they will do a great job for our country.

Their job is to carry out the orders of the Commander in Chief. Our job is to continue to probe and ask questions, so that the policy is the right policy for the country. That is the process of debate and deliberation in our system of government, a system that we would like to see in Iraq.

When it comes to the issues before this committee, we continue to raise serious questions, because these are complicated and serious issues. That is why I think this hearing is very important.

Over the last few years, particularly the last two, as I chaired the Strategic Subcommittee, we have tried to focus on deploying equipment after it has been thoroughly tested, not without testing. We wanted to fund activities that could be executed, not simply to provide funds that would not lead to executable programs. Third, to avoid excessive funding for just nonspecific activities. Those questions still remain and we will keep raising those questions, because that is our responsibility and our job. We are committed to do it.

Thank you, Mr. Chairman.

Chairman WARNER. Thank you, Senator. We all recognize your deep interest in the command structure for this particular conflict since a number of them were class mates, contemporaneous at West Point with you and in your own distinguished military career.

If you wish to have a leave of absence to join them, the Chair so grants it. [Laughter.]

Senator REED. I do not know what I could add, other than enthusiasm.

Chairman WARNER. Senator Akaka.

Senator AKAKA. Mr. Chairman, the die has been cast. I want our troops to know that we are proud of them. The reports we have of them is that their training is at the optimum, and they are ready for anything. I want our troops to know that we are proud they are out there, and we want them to know that we are here in Congress to support them in every way. I want to be one of those here as a Senator to do that. Of course, we want to wish them well in everything that they do.

Chairman WARNER. I thank you, Senator. You were a trooper yourself at one time in an early period of our history.

Senator Nelson.

Senator BILL NELSON. Mr. Chairman, I enjoyed watching you and Senator Levin last night.

Chairman WARNER. I enjoyed watching you earlier this morning. [Laughter.]

Senator LEVIN. I enjoyed watching Senator Warner last night. [Laughter.]

Chairman WARNER. That is part of our responsibilities.

Senator BILL NELSON. I have the privilege of being the ranking member of the Strategic Forces Subcommittee. I am looking forward to getting into the specifics. I have a lot of questions. I do not know all of you personally, but I do know Secretary Aldridge personally, and he is one of the best appointments in this administration. I have lots of questions for you, Pete. So I am looking forward to it.

Chairman WARNER. Senator Nelson.

Senator BEN NELSON. Thank you, Mr. Chairman. We live and work in an environment where debate and differences of opinion are crucial to the democracy and the freedoms that we enjoy and we protect. But there are times when we need to recognize the debate may be over, decisions have been made, and it is time to put the differences behind us, to join together. This is one of those times where we need now to support the men and women in uniform and support their efforts throughout the world.

We hope and pray for their safety and their speedy return. We hope that things will turn out as they are planned.

It is important that we join together as a Nation today and in the days ahead, because there will be differences of opinion. But it is important that we put those aside for the common good of our men and women in uniform and come together and support their efforts.

I thank you very much for the opportunity.

Chairman WARNER. I thank the Senator.

Senator Bayh.

Senator BAYH. I thank you, Mr. Chairman. I will just reiterate the feelings of my colleagues in terms of rallying around the troops at this time, regardless of the differences of opinion that may have existed previously. We all keep them in our thoughts and our prayers at this important hour.

Thank you, Mr. Chairman.

Chairman WARNER. Senator, the record reflects that you are one of the original drafters of the resolution that passed the Senate by 77 votes. I was privileged to be associated with you as one of the four drafters myself.

Senator BAYH. The privilege is mine, Mr. Chairman.

Chairman WARNER. Thank you.

Senator Pryor.

Senator PRYOR. Thank you, Mr. Chairman. I do not have anything to add other than it is a very serious moment in American history and for all Americans, and really for all the world. It is just a time, I think, that calls for prayer. We need to pray for the leadership of this country, including the President and our military leaders and planners, and certainly the troops out there on the ground. I just appreciate the opportunity you have given us this morning.

Chairman WARNER. I thank the Senator.

Senator Levin and I now will give our opening statements relative to the matter at hand.

The definition of homeland defense is ever-expanding. But before us today is a panel of individuals who are entrusted with one of the most critical chapters of homeland defense, a chapter that

many of us, including this Senator, have advocated for years and years, since I have been in this United States Senate.

You, as the Four Horsemen, are bringing into fruition the hopes and dreams that so many of us have had, beginning with our former president, Ronald Reagan, when he initiated the boldest steps in this direction, followed then by George Herbert Walker Bush.

I thank Senator Levin and Senator Allard for suggesting we have this at a full committee hearing this morning.

I welcome the witnesses. We have the Under Secretary of Defense for Acquisition, Mr. Aldridge; the Director of Operational Test and Evaluation, Mr. Christie; the Director of the Missile Defense Agency, General Kadish; and Assistant Secretary of Defense for International Security, Dr. J.D. Crouch.

Thank you all, gentlemen.

Events in the world today underscore the importance of this hearing. As our troops prepare for possible conflict with Iraq, U.S. missile defense assets are now at this moment being deployed throughout the Middle East in the Persian Gulf region. Turkey, Israel, and a number of nations in the Gulf are, today, defended by U.S. Patriot batteries against the missile threats posed by Iraq.

In addition, with U.S. assistance, Israel has developed and deployed its own national defense system centered around the important Arrow Program. Our Nation was a major contributor in many ways to the development of that program. These deployments are a key component of President Bush's vision of a layered missile defense system capable of defending the United States, its allies, friends, and deployed military forces against the increasing threat posed by ballistic missiles and weapons of mass destruction.

This is not a future hypothetical threat we are discussing. It is here and now, as Senator Allard pointed out. According to the Director of Central Intelligence, George Tenet, in his testimony before this committee, and I quote him, "The United States faces a near-term ICBM threat from North Korea. Over the next several years, we could face a similar threat from Iran and possibly Iraq."

September 11 was a vivid reminder that the United States is vulnerable to attack in ways we never imagined. It is our duty to protect the American people against the full range of threats as we can best envision them. President Bush has given that leadership from the moment he took office. He has been committed to developing and fielding missile defenses to protect the United States, our troops deployed overseas, our allies, and friends from a limited missile attack.

The President has substantially increased funding for missile defense and has focused our efforts on deploying an effective missile defense system. For fiscal year 2004, the President has requested $9.1 billion for missile defense, an 18-percent real increase over the 2003 level. He has removed the constraints imposed by the ABM Treaty. With this budget before us, he has taken an important first step in actually fielding a missile defense capability.

On December 17, 2002, President Bush announced his decision to field an initial missile defense capability, consisting primarily of ground- and sea-based interceptors to protect the United States, our friends, and our allies: "These initial capabilities emerge from

our research and development program and build on the test bed that we have been constructing. While modest, these capabilities will add to America's security and serve as a starting point for improved and expanded capabilities later, as further progress is made in researching and developing missile technologies."

A clear statement by the President and recognition of the fact that the program under optimum circumstances would have remained intact. But I think the President is exactly right in using the limited capabilities that we have thus far put in place. I strongly support this President's decision. It is a prudent, responsible step. It will ensure the United States has, at least, a modest capability.

Today we will receive your individual assessments as to the degree it helps. But he points out, it is a modest capability for the near future to protect our people against a limited—not a massive—but a limited attack.

It is important to point out the use of a development system by our military forces for operational purposes is not unique. There are many examples from the recent past, driven by an urgent need and the fact that the developmental system could provide at least limited operational capability of such systems for our military forces.

Some of these examples are well known. Two Joint Surveillance and Target Attack Radar System aircraft, or JSTARS, flew hundreds of hours of combat missions during the 1991 Persian Gulf War and provided warning to our forces on the ground when the Iraqi army was on the move. What was the status of the JSTARS aircraft at that time? A question. They were pre-production aircraft that had not even started operational test and evaluation.

Indeed, in the wake of the outstanding performance of JSTARS during the 1991 conflict, our committee increased the administration's request for JSTARS aircraft long prior to completion of operational test and evaluation. More recently, the Predator and Global Hawk unmanned aerial vehicles have proven to be valuable assets to our forces during the global war on terrorism. Our military put these assets in the field in Afghanistan, even though the Predator failed its operational evaluation, and Global Hawk has yet to start its operational evaluation.

The witnesses today will testify as to how successful these systems have been in contributing to our military effort. The record is clear, when faced with an imminent threat and an urgent need for a military capability, we have often fielded systems that have not fully completed their operational testing. This does not mean that we are fielding systems with no military value.

To the contrary, this practice has enabled us to provide our military with critical capabilities during times of crisis and conflict. Clearly the testing of the BMD system is not complete. The Secretary of Defense has already testified, and I expect our witnesses today will confirm, that testing on the BMD system will continue unabated, will be vigorous, will grow more complex and difficult, and that the system capabilities will hopefully improve over time.

The capability that this initial fielding will provide is, by the Department of Defense's own assessment, limited. The alternative is to leave the Nation with no defenses at all against long-range mis-

sile attack. I repeat, we have absolutely nothing in place in this Nation to interdict the rogue state from firing at us, terrorists firing at us, or other means of a limited attack. That is unacceptable. I think the steps taken by our President, and supported by the witnesses before us, are very prudent and the correct steps.

Senator Levin.

STATEMENT OF SENATOR CARL LEVIN

Senator LEVIN. Thank you very much, Mr. Chairman, for calling this very important hearing today.

This committee has historically been committed to ensure that the men and women of our military service receive the best equipment, the best training, and the best support that we can provide. That is why 20 years ago, this Congress passed one of the most important laws to ensure the quality of the military's equipment.

The law established the Director of Operational Test and Evaluation (DOT&E). It was passed in 1983. It states that no weapons system may be deployed without undergoing rigorous realistic operational testing, or a plan for that testing at a minimum, and approved by the director.

To keep the director as independent as possible, he is appointed by the President, not by the Secretary of Defense. He is confirmed by the Senate. We are pleased to have the current director, Tom Christie, with us today. Mr. Christie and his predecessors have been able to maintain an independent, unbiased watch over the development of the Pentagon's weapon systems.

Unlike the military services that developed the systems, the director has no stake in the systems that he tests, except to see that they perform as they should under realistic combat-like conditions. If they do not, his job is to inform the Secretary of Defense and Congress. This powerful system of checks and balances has served the military well. It has been a long time since we deployed a system that does not work, or at least that we deployed a system that does not have a plan for operational testing to make sure that it does work.

Prior to the existence of the 1983 law that established the Operational Test and Evaluation Director, such multi-billion dollar mistakes were all too common. The Bradley Fighting Vehicle, the B–1 bomber, and the Sergeant York gun, were all part of a major defense build-up of the early 1980s. There were examples of systems that were rushed to deployment without realistic testing or a plan for realistic testing. The first two systems had such serious problems that they would have posed life-threatening dangers to their own crews, had they ever been used in combat. The taxpayer was forced to pay tens of billions of dollars in extra costs to retrofit fixes for the most egregious problems. The Sergeant York gun was actually canceled outright after taxpayers spent $2 billion to develop and purchase more than 100 of the faulty guns.

So we enacted a law in 1983 to establish the Director of Operational Test and Evaluation, require that all major weapon systems have independent operational testing either before they are deployed or to have a plan for such operational testing in the field, and that they not be exempt from operational testing. The Patriot

PAC–3 missile system is one of such systems and is being deployed now, following a rigorous set of operational tests.

The decision to develop and deploy a national missile defense against strategic missiles has been made. That is not the issue anymore. There was debate over that decision, as to whether it was wise to do that, and what it would precipitate in terms of other countries' responses, but that debate is over. The decision to deploy a national missile defense is over.

The question now is whether or not we are going to deploy a system, which we take steps to assure will work. That is the issue, and that is where operational testing comes in. I want to first off agree with my chairman relative to the history of JSTARS and Predator.

JSTARS and Predator were fielded before operational testing was completed and should have been. They were tested in the field. We learned a lot about JSTARS and Predator in the field. What we did not do relative to JSTARS and Predator, and what we should not do here, is exempt them from operational testing at some point.

There was no language relative to JSTARS and to the Predator such as is in this year's budget request, which provides that a system which is being fielded is going to be considered a system which is in development and demonstration. Because the effect of saying, as this budget request does, that the 2004 system, which is going to be deployed or fielded in Alaska, is going to be considered, in the words of the budget request, a system development and demonstration for purposes of any law governing the development and production of a major defense acquisition program. That language effectively exempts this system from operational development. That is the problem that I see.

I have problems with fielding a system before it is operationally tested, because part of the system can never be operationally tested. The radar that is going to be deployed cannot be operationally tested for 2 years. I have problems with that. That is one problem. We can agree or we can disagree over that one.

But it seems to me, doubling the problem is this exemption from operational testing for the parts of the system that can be tested after they are fielded. Parts of the system can be tested. I would hope we could unite on that issue. We never adopted language such has been requested here for JSTARS and for Predator. There is no reason to adopt that language. It sets a horrible precedent for us to exempt a system from operational testing at some point, even after it is fielded.

Predator and JSTARS prove my point, that you do not need language like is being proposed in order to field a system. So we can debate whether or not this system should be fielded at this point. We can debate that issue; it is a debate and people will differ on that one. But it is obviously going to be fielded. I do not think we should have any debate over whether or not we ought to include language which exempts a system that has been fielded without operational testing from being operationally tested, to the extent it can be, after it is fielded. That is what seems to me to be an issue where we ought to be able to rally around. We are rallying our troops, and rightly so, even though there was difference over the

issue as to whether or not the decision to move to war without the full support of the United Nations with a resolution, which the President said he would seek a vote on. We debated that and that debate is over. Now we are rallying around our troops.

We debated the deployment of a system, a national missile defense system. That debate is over. The decision to develop and deploy it has been made. But now, it seems to me that we ought to rally around operationally testing that system to the extent we can. That is a safety mechanism for our troops and for our people. That 1983 law should not be waived. We should not exempt systems from being operationally tested at some point, either before they are fielded, hopefully.

In most cases, they can be. But in exceptional cases, and the chairman has mentioned those cases, Predator, JSTARS, they had a useful purpose to be served after they were fielded. By fielding them, there was a useful purpose. They gave us some capability we otherwise did not have. It was not the full capability. But we sure learned a lot after they were fielded by testing them in the field.

Again, I emphasize we did not adopt this kind of language that is being proposed here by the administration; that no one seems to know how it got in the budget, by the way. We did not adopt this kind of language for JSTARS and Predator, as far as I know, at least.

So that is my opening statement, Mr. Chairman. Again, I thank you for calling the hearing.

Chairman WARNER. Thank you, Senator. I guess we agree, then, on the question of fielding it. It is the old doctrine, use it or we could lose it. We could suffer an attack, which would substantially damage life and limb and property here in this country. To think that we would not put everything possible against that potential attack is not a wise decision.

Now as to the laws, that specific question that you framed is before the secretary and this panel this morning. So, Mr. Secretary, we will admit all statements in their entirety for the record. You gentleman may proceed, as you wish.

Secretary Aldridge.

STATEMENT OF HON. EDWARD C. "PETE" ALDRIDGE, JR., UNDER SECRETARY OF DEFENSE FOR ACQUISITION, TECHNOLOGY AND LOGISTICS

Secretary ALDRIDGE. Good morning, Mr. Chairman, Mr. Levin, and members of the committee. Thank you for the opportunity to appear before you today to discuss the fiscal year 2004 Department of Defense missile defense program and budget submission. I am pleased to provide you this update on the progress of the missile defense development program.

In the year that has transpired since I last addressed the committee, we have made some good progress in missile defense. The new management structure, established by Secretary Rumsfeld in his memorandum of January 2, has been stood up. An effective and vigorous oversight structure, aided by the Missile Defense Support Group, is in place and providing valuable advice to me and the Director of the Missile Defense Agency for the conduct of the program. Processes within the Department have been modified to sup-

port the accelerated development and fielding of these new revolutionary capabilities.

A national team of the best and brightest of government and industry has been formed and is tackling the complex technical challenges of ballistic missile defense. We have achieved a number of successes in the missile defense test program, which have added momentum to the development effort and bolstered our confidence that we will be able to meet the challenges that lie ahead.

In addition, our overtures to allies and friends have generated an expanded desire for international participation in the ballistic missile defense program. The focus of my testimony in March of last year was the management and oversight of the missile defense program. The committee was rightly concerned that the new management structure should provide for the proper oversight of the program by the Department and that Congress would have full insight into program activities.

I informed you of the formation of a Missile Defense Support Group, consisting of key officials plus two advisors from 13 selected offices within the Department, including the military services, for a total of 39 individuals who support the decisionmaking by the Senior Executive Council and to advise me and the Director of the Missile Defense Agency on the full range of issues associated with the missile defense program, including policy, operations, acquisition, and resources.

In the span of one year, we have had 25 meetings of the Missile Defense Support Group, an average of two meetings each month of a group of some of the most knowledgeable and experienced individuals in the Department. No program in the Department receives more scrutiny, either in level of rigor or frequency of study, than the missile defense program.

The Missile Defense Support Group has provided me and General Kadish strong support in numerous key areas of the missile defense program. The Missile Defense Support Group has helped develop the strategies for the deployment of an initial capability, and the follow-on deployment of expanded capabilities, in block configurations. It has also been valuable for the transition of developed capabilities to the Services for fielding and operation.

In October of last year, I decided that the time was right to transfer the Patriot PAC–3 system to the Army. The advice of the Missile Defense Support Group for making the hand-over to the Army supported the Defense Acquisition Board process and aided my decision to make the transfer.

The Missile Defense Support Group has also helped the missile defense development program by speeding a number of routine Department processes, including review of the annual budget and continuing evaluation of each part of the missile defense program against its cost and schedule goals. I can confidently assure Congress that oversight has actually improved under the new management structure with the continual engagement of this support group.

As you are aware, in December 2002, President Bush made a decision to deploy limited missile defense capability beginning in 2004. The nature of the expanding ballistic missile defense threat, and the declared hostile intent of our adversaries, compels us to

put capabilities in the hands of our fighting men and women as soon as they become available, even if the state of development is less than we would ultimately hope to deliver.

Putting an effective capability into the hands of our fighting force is a dramatically safer move for our troops, our Nation, our lives, and our friends, than delaying their fielding for 5 years or more as we strive for the final objective level of performance. This is the strategy directed by Secretary Rumsfeld in his January 2, 2002, memorandum on the missile defense program and the philosophy by which our efforts are being guided.

Concerns have been raised by some that this might result in the fielding of systems that are unproven and unsuitable for battlefield conditions, or that the Department is seeking a waiver of statutory requirements governing operational testing. No such waiver of testing requirements has been requested; and I will repeat that. No such waiver of testing requirements has been requested.

Quite the contrary, the revolutionary nature of missile defense and the threat posed by ballistic missiles have prompted us to take steps to ensure that deployed systems meet effectiveness and suitable goals through rigorous testing throughout the development. The Department involves the operational test community well in advance of a deployment decision, so that we can gain a better understanding of these issues as capabilities are being developed. The Director of Operational Test and Evaluation is directly involved in the review and assessment of all missile defense testing activities. He will provide his operational assessment report to Congress each year and provide the Department an operational assessment of the suitability and effectiveness of the ballistic missile defense system at each block decision point.

DOT&E also participates as a member of the Missile Defense Support Group, which has examined the development test program on several occasions during its first year of work. The Department is committed to ensuring that fielded missile defense capabilities are sufficient for defending against the threat. I am confident that the level of oversight being provided to test activities will accomplish this goal.

An important element of our missile defense program is the planned ability to extend ballistic missile defenses to include our friends and allies. Recent revelations about North Korea's ability to reach the United States, compounded by that nation's recent behavior, have validated the concerns of Japan and other Western Pacific nations regarding the threat of ballistic missile attack.

These concerns are rightly shared by Europe, as well. The ongoing proliferation of weapons and missile technology to nations such as Iran pose an immediate threat to the European continent and to North America. This has sparked a growing desire among several of our allies to participate in the missile defense program. We have recently conducted discussions with the United Kingdom, Japan, and Denmark toward expanded missile defense participation, with some positive outcomes already agreed to.

We are also continuing dialogue with other allies. The effectiveness of any global ballistic missile defense system will be enhanced by international participation.

Since this is my first opportunity to testify before the Senate Armed Services Committee since the passage of the National Defense Authorization Act for Fiscal Year 2003, I would like to take this opportunity to thank its members for their invaluable contribution to such elements of this legislation as Buy-to-Budget. This provision will help us optimize the use of taxpayer funds as we seek to provide the best possible equipment and weaponry to the warfighter. We are also grateful for the removal of certain superfluous and resource-consuming reporting requirements.

The continued cooperation between the Department of Defense and Congress will only grow in importance as we execute our mission to provide for the national security of the United States. I look forward to continuing that cooperation.

Thank you, Mr. Chairman, for the opportunity to testify.

Chairman WARNER. Thank you, Secretary Aldridge.

[The prepared statement of Mr. Aldridge follows:]

PREPARED STATEMENT BY HON. EDWARD C. "PETE" ALDRIDGE, JR.

Good morning, Mr. Chairman, ranking member, and members of the committee. Thank you for the opportunity to appear before you today to discuss the fiscal year 2004 Department of Defense missile defense program and budget submission. I am pleased to provide you this update on the progress of the missile defense development program.

In the year that has transpired since I last addressed the committee, we have made good progress in missile defense. The new management structure established by Secretary Rumsfeld in his memorandum of January 2, 2002, has been stood up. An effective and rigorous oversight structure, aided by the Missile Defense Support Group, is in place and providing valuable advice to me and to the Director of the Missile Defense Agency for the conduct of the program. Processes within the Department have been modified to support the accelerated development and fielding of these new revolutionary capabilities. A national team of the best and brightest of the government and industry has been formed and is tackling the complex technical challenges of ballistic missile defense. We have achieved a number of successes in the missile defense test program, which have added momentum to the development effort and bolstered our confidence that we will be able to meet the challenges that lie ahead. In addition, our overtures to allies and friends have generated an expanded desire for international participation in the Ballistic Missile Defense Program.

The focus of my testimony in March of last year was the management and oversight of the missile defense program. The committee was rightly concerned that the new management structure should provide for the proper oversight of the program by the Department and that Congress should have full insight into program activities. I informed you of the formation of a Missile Defense Support Group (MDSG) consisting of key officials plus 2 advisors from 13 selected offices within the Department (including the military services) for a total of 39 individuals who support decisionmaking by the Senior Executive Council (SEC) and to advise me and the Director of the Missile Defense Agency on the full range of issues associated with the missile defense program including policy, operations, acquisition, and resources. In the span of 1 year we have had 25 meetings of the MDSG, an average of 2 meetings each month of a group of some of the most knowledgeable and experienced individuals in the Department. No program in the Department receives more scrutiny—either in level of rigor or frequency of study—than the missile defense program. The MDSG has provided me and General Kadish strong support in numerous key areas of the missile defense program. The MDSG has helped develop the strategies for the deployment of an initial emergency capability and the follow-on deployment of expanded capabilities in block configurations. It has also been valuable for the transition of developed capabilities to the Services for fielding and operation. In October of last year I decided that the time was right to transfer the Patriot (PAC–3) system to the Army. The advice of the MDSG for making the handover to the Army supported the Defense Acquisition Board process and aided my decision to make the transfer. The MDSG has also helped the missile defense development program by speeding a number of routine Department processes including review of the annual budget and the continuing evaluation of each part of the missile defense program

against its cost and schedule goals. I can confidently assure Congress that oversight has actually improved under the new management structure with the continual engagement by the MDSG.

As you are aware, on December 19, 2002, President Bush made the decision to deploy a limited missile defense capability beginning in 2004. The nature of the expanding ballistic missile threat and the declared hostile intent of our adversaries compel us to put capabilities in the hands of our fighting men and women as soon as they become available, even if the state of development is less than what we ultimately hope to deliver. Putting an effective capability into the hands of our fighting force is a dramatically safer move for our troops, our Nation, our allies, and our friends than delaying their fielding for 5 years or more as we strive for a final, objective level of performance. This is the strategy directed by Secretary Rumsfeld in his January 2, 2002 memorandum on the missile defense program and the philosophy by which our efforts are being guided. Concerns have been raised by some that this might result in the fielding of systems that are unproven and unsuitable for battlefield conditions or that the Department is seeking a waiver of statutory requirements governing operational testing. No such waiver of testing requirements has been requested. Quite the contrary, the revolutionary nature of missile defense and the threat posed by ballistic missiles have prompted us to take steps to ensure that deployed systems meet effectiveness and suitability goals through rigorous testing throughout development. The Department involves the operational test community well in advance of a deployment decision so that we can gain a better understanding of these issues as capabilities are being developed. The Director of Operational Test and Evaluation (DOT&E) is directly involved in the review and assessment of all missile defense testing activities. He will provide his operational assessment report to Congress each year and provide the Department an operational assessment of the suitability and effectiveness of the ballistic missile defense system at each block decision point. DOT&E also participates as a member of the Missile Defense Support Group, which has examined the developmental test program on several occasions during its first year of work. The Department is committed to ensuring that fielded missile defense capabilities are sufficient for defending against the threat. I am confident that the level of oversight being provided to test activities will accomplish this goal.

An important element of our missile defense program is the planned ability to extend ballistic missile defenses to include our friends and allies. Recent revelations about North Korea's ability to reach the United States, compounded by that nation's recent behavior, have validated the concerns of Japan and other Western Pacific nations regarding the threat of ballistic missile attack. These concerns are rightly shared by Europe, as well. The ongoing proliferation of weapons and missile technology to nations such as Iran poses a more immediate threat to the European continent than to North America. This has sparked a growing desire among several of our allies to participate in the missile defense program. We have recently conducted discussions with the United Kingdom, Japan, and Denmark toward expanded missile defense participation, with some positive outcomes already agreed to. We are also in continuing dialogue with other allies. The effectiveness of any global ballistic missile defense system will be enhanced by international participation.

Since this is my first opportunity to testify before the Senate Armed Services Committee since the passage of the National Defense Authorization Act for Fiscal Year 2003, I would like to take this opportunity to thank its members for their invaluable contributions to such elements of this legislation as "Buy-to-Budget." This provision will help us optimize the use of taxpayer funds as we seek to provide the best possible equipment and weaponry to the warfighter. We are also grateful for the removal of certain superfluous and resource-consuming reporting requirements. The continued cooperation between the Department of Defense and Congress will only grow in importance as we execute our mission to provide for the national security of the United States. I look forward to continuing that cooperation.

Thank you, Mr. Chairman, for the opportunity to testify before the committee. I would be happy to answer any questions you might have.

Chairman WARNER. Mr. Christie, in your opening statement here, I hope you would address Senator Levin's important observation and express your concurrence, I presume, with the very clear statement about waiver given by Secretary Aldridge.

STATEMENT OF HON. THOMAS P. CHRISTIE, DIRECTOR OF OPERATIONAL TEST AND EVALUATION, DEPARTMENT OF DEFENSE

Mr. CHRISTIE. Mr. Chairman, Senator Levin, and distinguished members of the committee, I also appreciate this opportunity to appear and discuss operational test issues involved with building this missile defense test bed that may also have some inherent defense capability. Let me emphasize up front that I strongly support building this test bed as a means of conducting more realistic ballistic missile defense testing.

It will provide us with an excellent capability to test the integrated ballistic missile defense system against more challenging targets and under more realistic flight conditions. Designed to accomplish this testing mission, this test bed may have some capability to defend against an actual threat and a real attack. It depends, of course, on certain assumptions about intelligence of an imminent attack and the positioning of sensors to acquire, track, and target the threat.

Regardless of what this initial collection of equipment, communications, and personnel is called, the fact remains that we must build this test capability and put it in the field before we can test the system. It is also prudent to develop operational concepts and to train personnel in concert with test bed development, so that whatever inherent capability exists in this testing infrastructure could be employed to defend the United States in an event of a ballistic missile attack.

I understand and share the concerns raised by some members of Congress, with the precedent of fielding operational systems without adequate operational testing. Some had suggested that the Department is requesting a waiver from operational testing for the ballistic missile defense system. Mr. Aldridge has said that the Department has not requested such a waiver.

Now, let me take just a moment here to discuss my overall assessment of the situation. The Missile Defense Agency is proceeding with the design and development strategy that is very proactive when it comes to testing. General Kadish has adopted a mission assurance philosophy that treats test instrumentation as mission-critical equipment. My staff and I are involved on a daily basis with the Missile Defense Agency and the program managers for the ballistic missile defense elements. We review test plans, participate in planning meetings, witness tests, and provide coordinated advice to the director and respond in written reports to Congress on the adequacy of the testing programs.

I have access to all the information I need to fulfill these responsibilities. I have completed my assessment of the PAC–3 initial operational test and evaluation, which is documented in a classified beyond low-rate initial production report that was provided to Congress last November.

I have also completed, and submitted to the appropriate committees of Congress, my annual assessment of the MDA testing programs, as required by House Report 107–333. In that report I conclude that the ground-based mid-course defense (GMD) element of the BMDS, in essence, has not yet demonstrated operational capability.

This conclusion, which I believe General Kadish agrees with, is based on the fact that many essential components of GMD have yet to be built. We can't test the system without these critical components. We cannot test the GMD system realistically without this test bed.

This was illustrated recently when the exo-atmospheric kill vehicle failed to separate from the booster in integrated flight test ten. MDA subsequently restructured the flight test program, eliminating further testing with this old booster system. This decision considered the poor performance of the surrogate booster system and the risks of diverting booster developers from the objective booster design effort, compared with the advantages of gathering additional data from those flight tests.

Beginning later this fiscal year and continuing to the 2004 decision, testing will resume with a test flight for each of the candidate booster motors and a risk-reduction flight for a target launch from Kodiak. Intercept testing will continue in IFTs–14 and –15, flown with the new boosters. This is followed by integrated ground testing of the test bed and a system test readiness review just prior to the 2004 deployment decision.

Current plans also call for three more intercept flights for the Aegis ballistic missile defense prior to the end of fiscal year 2004. Additional flight testing beyond this point is still being planned. The purpose of the test bed is to establish a baseline capability, to realistically integrate and test the components of the BMDS, and to enhance capability incrementally through block development.

The real challenge here is to develop an operational concept for using the test bed that will integrate components of the BMDS as they become available, in order to evaluate the operational capability of the system and defend against a ballistic missile attack, if so needed. If we do not develop an operational concept and an attack does come, then we will have failed in a most serious way.

On the other hand, if an effort to refine an operational concept for an interim system significantly distracts us from building the objective system in expeditious fashion, then we risk similar failure. Defense from the test bed is a serious matter that will demand the focus and attention of the developers, the testers, and the users. We will need to work together with a common understanding of what we are building to achieve this goal.

While the test bed is a research and development system, this does preclude us from addressing operational test and evaluation issues with it. In fact, it is common for systems in development to combine developmental and operational test objectives. The test bed, including missiles, will provide an early opportunity to acquire valuable ground test data on intra- and inter-operability between the command and control center and the silo/missile complex; on the system and missile health, or built-in testing capability; and on system safety, reliability, maintainability, and logistics.

It will also permit us to get an early start on collecting data on the aging effects on the missile. Availability of this data will permit lessons learned from the test bed to be considered in improving the objective ground-based mid-course defense system.

Every major GMD ground and flight test, both prior to and after the 2004 test bed is available, formally addresses both development

testing and operational testing, objectives consistent with the maturity level of the system. The Service operational test agencies have approximately 35 personnel at this point, dedicated to planning the details of the operational test portions of the ground and flight tests and for analyzing and reporting relevant operational test data.

My staff is working with the operational test agencies to define independent evaluation plans for those operational test activities. I will review and approve these operational test and evaluation plans and their associated data requirements. I will review and comment on plans for development tests, exercises, simulations, and experiments that will produce the data to feed the evaluation process. I will use both developmental and operational test data as the basis for my operational assessments, for advising General Kadish and the Secretary, and as the basis for my annual assessment, which will be provided to Congress.

Let me wrap up my remarks by briefly covering the Patriot PAC–3 system, which was talked about earlier. This is the first BMDS element to go through a procurement milestone under the new capability-based acquisition philosophy. I concluded in my beyond-low-rate production report, submitted last November to Congress, that the PAC–3 missile shows significantly improved performance against some tactical ballistic missile threats.

The Defense Acquisition Board approved a limited purchase of PAC–3 missiles consistent with programmatic objectives, such as developing production capacity, unit cost considerations, and urgent military needs. This puts an improved, proven capability in the field, well ahead of when a completely demonstrated objective capability will be available.

The Missile Defense Agency originally planned for future blocks of the PAC–3 system to stay in research and development, transitioning to the Army only after each block went through further developmental and operational testing. However, MDA took advice from me and other Missile Defense Support Group members, as Mr. Aldridge has discussed earlier, to keep the development and testing activities in a combined DT/OT mode. The entire PAC–3 program is being transitioned to the Army. This decision avoids conflicting development objectives between missile defense and air defense mission needs. The program office has developed a robust follow-on test program to address other ballistic missile targets, counter-measures, and other air defense targets.

Mr. Chairman, ladies and gentlemen, my staff has worked and will continue to work diligently with General Kadish's staff to build what I feel is a very effective relationship. I will continue to work closely with General Kadish to ensure that the mission of the test bed, as a test bed, is kept in perspective. He and I have discussed taking advantage of the data gathering opportunities that this test bed will provide.

I am working with the Service operational test agencies to identify data requirements for an operational test evaluation plan that I will review and approve. I will continue to monitor planning and testing activities to ensure that we test as realistically and as thoroughly as we can, advise the Director of MDA of operational testing

concerns, and report my assessments of progress to both the Secretary and to you.

Thank you.

Chairman WARNER. Thank you, Mr. Christie.

[The prepared statement of Mr. Christie follows:]

PREPARED STATEMENT BY HON. THOMAS P. CHRISTIE

Mr. Chairman, members of the committee, I appreciate the opportunity to appear before you today and discuss the operational testing issues involved with building a missile defense test bed that may also have some inherent defensive capability. I strongly support building this test bed as a means of conducting more realistic ballistic missile defense testing. It will provide us with an excellent capability to test the integrated Ballistic Missile Defense System against more challenging targets under more realistic flight conditions. Designed to accomplish this testing mission, this test bed may have some capability to defend against an actual threat in a real attack, depending, of course on certain assumptions about intelligence of an imminent attack and the positioning of sensors to acquire, track and target the threat. Regardless of what this initial collection of equipment, communications, and personnel is called, the fact remains that we must build the test capability and put it in the field before we can test the system. It is also prudent to develop operational concepts, and train personnel in concert with the test bed's development, so that whatever inherent capability exists in the testing infrastructure could be employed to defend the United States in the event of a ballistic missile attack.

I understand and share the concerns raised by Members of Congress with the precedent of fielding operational systems without adequate operational testing. Some have suggested that the department is requesting a waiver from operational testing for the BMDS system. Let me take a moment here to discuss my assessment of this situation.

The Missile Defense Agency is proceeding with a design and development strategy that is very proactive when it comes to testing. General Kadish has adopted a mission assurance philosophy that treats test instrumentation as mission critical equipment. My staff and I are involved on a daily basis with the Missile Defense Agency and the program managers for the Ballistic Missile Defense System elements, reviewing test plans, participating in planning meetings, witnessing tests, providing coordinated advice to the director, and responding in written reports to Congress on the adequacy of the testing programs. I have access to all the information I need to fulfill these responsibilities.

I have completed my assessment of the PAC–3 Initial Operational Test and Evaluation test results, which is documented in a classified Beyond Low Rate Initial Production report, provided last November to Congress. I have also completed and submitted to the appropriate committees of Congress, my annual assessment of the MDA testing programs, required by House report 107–333. In that report, I conclude that the Ground-based Midcourse Defense element of the BMDS has essentially not yet demonstrated operational capability. This conclusion, which I believe MDA agrees with, is based on the fact that many essential components of GMD have not yet been built. We cannot test the system without these critical components, and we cannot test it realistically without the test bed.

This was illustrated recently, when the exoatmospheric kill vehicle failed to separate from the booster in IFT–10. MDA subsequently restructured the flight test program, eliminating further testing with the old booster system. This decision considered the poor performance of the legacy booster system and the risks of diverting booster developers from the objective booster design effort, compared with the advantages of gathering additional data from those flight tests.

Beginning later this fiscal year and prior to the 2004 decision, testing will resume with a test flight for each of the candidate boosters and a risk reduction flight for a target launched from Kodiak. Intercept testing will continue in IFTs–14 and 15, flown with the new boosters. MDA is currently considering plans to optimize the sequence of these tests, and to include additional risk reduction flights. This is followed by integration ground testing of the test bed and a system test readiness review. Current plans also call for three more intercept flights for the Aegis Ballistic Missile Defense prior to the end of fiscal year 2004, with the last flight conducted against a separating threat. Additional flight testing beyond this point is still being planned. The purpose of the test bed is to establish a baseline capability, to realistically integrate and test the components of the BMDS, and to enhance capability incrementally, through block development.

The real challenge is to develop an operational concept for using the test bed that integrates components of the BMDS as they become available, in order to evaluate the operational capability of the system and defend against a ballistic missile attack in an emergency. If we don't develop an operational concept and an attack does come, then we will have failed in a most serious way. On the other hand, if an effort to refine an operational concept for an interim system significantly distracts us from building the objective system in an expeditious fashion, then we risk similar failure against more sophisticated threats down the road. Defense from the test bed is a serious matter that will demand the focused attention of the developers, the testers and the users. We will need to work together with a common understanding of what we are building to achieve this goal.

While the test bed is a research and development system, this does not preclude us from addressing operational test and evaluation issues. In fact, it is common for systems in development to combine developmental and operational test objectives. The test bed, including missiles, will provide an early opportunity to acquire valuable ground test data on intra- and interoperability between the command and control center and the silo/missile complex; on the system and missile health and status or built in testing capability; and on system safety, reliability, maintainability and logistics supportability. It will also permit us to get an early start on collecting data on aging effects on the missile. Availability of this data will permit lessons learned from the test bed to be considered in improving the objective Ground-based Midcourse Defense system.

Every major GMD ground and flight test, both prior to and after the 2004 test bed availability, formally addresses both DT and OT objectives consistent with the maturity level of the system. This includes testing planned both prior to 2004 test bed capability and after. The Service Operational Test Agencies have approximately 35 personnel dedicated to planning the details of the operational test portion of the ground and flight tests, and for analyzing and reporting relevant operational test data. My staff is working with the Operational Test Agencies to define independent evaluation plans for the operational test activities. I will review and approve these Operational Test and Evaluation plans and their associated data requirements. I will review and comment on plans for developmental tests, exercises, simulations, and experiments that will produce the data to feed the evaluation process. I will use both developmental and operational test data as the basis for my operational assessment, for advising General Kadish, and as the basis for my annual assessment.

Let me wrap up my remarks with an update on the PAC–3 program. This is the first BMDS element to go through a procurement milestone under the new capability based acquisition philosophy. I concluded in my Beyond Low Rate Production report submitted last October that the missile shows significantly improved performance against some tactical ballistic missile threats. The Defense Acquisition Board approved a limited purchase of PAC–3 missiles, consistent with programmatic objectives, such as developing production capacity and unit cost considerations, and urgent military needs. This puts an improved, proven capability in the field well ahead of when a completely demonstrated objective capability will be available. MDA originally planned for future blocks of the PAC–3 system to stay in research and development, transitioning to the Army only after each block went through further developmental and operational testing. However, MDA took the advice of myself and other missile defense support group members, to keep the development and testing activities in a combined DT/OT mode. The entire PAC–3 program is being transitioned to the Army. This decision avoids conflicting development objectives between missile defense and air defense mission needs. The program office has developed a comprehensive follow-on test program to address maneuvering ballistic missile targets, countermeasures, and air defense targets.

Mr. Chairman, ladies and gentlemen, my staff has worked diligently with General Kadish's staff to build what I feel is a very effective relationship. I will continue to work closely with General Kadish to make sure that the mission of the test bed, as a test bed, is kept in perspective. General Kadish and I have discussed taking advantage of the data gathering opportunities that the test bed will provide. I am working with the Service operational test agencies to identify data requirements for an operational evaluation plan that I will review and approve. I will continue to monitor planning and testing activities to ensure that we test as realistically and thoroughly as we can, advise the Director, MDA of operational testing concerns, and report my assessments of progress to the Secretary and to you.

This concludes my opening remarks and I welcome your questions.

Chairman WARNER. Secretary Crouch.

STATEMENT OF J.D. CROUCH II, ASSISTANT SECRETARY OF DEFENSE FOR INTERNATIONAL SECURITY POLICY

Secretary CROUCH. Thank you, Mr. Chairman, Senator Levin, members of the committee. It is an honor to come before your committee today to provide details about the missile defense policy and direction of our missile defense program in light of the President's recent decision to begin initial fielding of missile defense capabilities in 2004. This committee has played a crucial role in bringing our missile defense program to this point.

Mr. Chairman, we and our allies face serious and unpredictable threats to our homeland and military forces from the proliferation of ballistic missiles armed with weapons of mass destruction. Ballistic missiles have proliferated on a global basis and are in the hands of over two dozen states, many of which have either chemical, biological, or nuclear weapons programs under way.

North Korea, for example, has had an active ballistic missile program for years and has developed a wide range of offensive missiles. It has deployed and exported missiles that can threaten our allies, friends, and forces abroad. North Korea also has the Taepo Dong II long-range missile, which is capable of reaching parts of the United States and could be flight tested at any time.

Iran and other countries are also working on space launch vehicles and intercontinental range ballistic missiles that could be ready for testing in the next few years.

We are moving forward with missile defense to help protect American territory and forces abroad, our allies, and friends against the use of missiles and weapons of mass destruction by unpredictable and, in some cases, irresponsible states.

In addition, some countries seek missiles and weapons of mass destruction to coerce us simply by threatening their use. Missile defenses can help to reduce our potential vulnerability to such coercive threats.

Finally, missile defense can help to reduce the proliferation of offensive missiles by reducing their value, thereby reducing the demand for them. In this way, we see defenses as a way to provide a useful complement to our non-proliferation efforts. In light of this new security environment and the considerable progress made to date in missile defense technology, the President directed the Department of Defense to proceed with initial fielding of modest missile defense capabilities in 2004 and 2005.

As the President has noted, because ballistic missile threats also endanger our friends and allies around the world, it is essential that we work together cooperatively to defend against them. To do so, the Department of Defense is developing and deploying missile defenses capable of protecting not only the United States and our deployed forces, but also our friends and allies. We have structured our missile defense program in a manner that encourages participation by other nations.

The Department has been pursuing a broad-based research development and testing program to examine the full range of capabilities to intercept ballistic missiles of all ranges and in all phases of flight. As we field the missile defenses called for by the President, our development and testing program will continue to improve our defensive systems over time.

Under this evolutionary approach, we do not envision a final or fixed missile defense architecture. Rather, the composition of missile defenses, including the type, number, and location of components, will change over time to meet the changing threat and take advantage of technological developments. This approach facilitates the timely delivery of an initially modest, but still useful, defensive capability that can then be improved with the benefit of technical advancement and operational experience.

The capabilities called for by the President for 2004/2005 include 20 ground-based interceptors against an intercontinental range ballistic missile threat, 16 located at Fort Greeley, Alaska, and four located at Vandenberg Air Force Base in California. The GBIs, or ground-based interceptors, will be available on a continuous basis to intercept long-range missiles during their mid-course phase of flight.

The ballistic missile defense system supporting the GBIs will include an initial set of integrated sensors, based on land and at sea, and cued by early warning sensors in space. We have also made requests to the United Kingdom and the Kingdom of Denmark to upgrade early warning radars on their territory to track ballistic missile threats that might emanate from the Middle East. The United Kingdom has already granted the United States permission. We look forward to hearing from Denmark sometime later this year.

To address the medium-range threat, we plan to equip three existing Aegis-class naval ships with up to 20 standard missile SM–3 interceptors. This will provide a highly mobile missile defense capability to help protect U.S. forces and allies and provide, again, some modest limited protection for the U.S. homeland against shorter range missiles that might be launched from ships off of our coast.

Finally, with respect to the short-range threat, we will continue to field additional air transportable and mobile Patriot PAC–3 units with up to 346 PAC–3 missiles and 42 PAC–3 radars. These initial capabilities may be improved later in the decade through additional measures that will ultimately lead, we hope, to a multilayered missile defense capability.

Fielding a layered missile defense system poses new operational command and control challenges. A key presidential document used to organize U.S. forces, the Unified Command Plan UCP 2002, assigns the U.S. Strategic Command responsibility for planning, integrating, coordinating, and developing the desired characteristics for sea-, land-, air-, and space-based missile defense operations.

UCP 2002 addresses the missile defense command and control issue through the use of centralized planning with decentralized execution. Therefore, while STRATCOM will be given responsibility for planning, integrating, and coordinating global missile defense operations, NORTHCOM and other regional combatant commands retain responsibility for defending their geographic areas of responsibility. It also includes command and control over systems providing defense against ballistic missile attacks.

Mr. Chairman, as the President has stated, it is essential that we work together with allies and friends to defend against ballistic missile threats. Accordingly, the Department of Defense is develop-

ing and deploying missile defenses capable of protecting our friends and allies, as well. There are a number of examples of U.S. missile defense in cooperation with allies around the world. The United States, as this committee well knows, has been working with Israel since the late 1980s to develop the Arrow Missile Defense System.

We are also working cooperatively with the United Kingdom, Japan, Italy, and Germany, and have an ongoing dialogue with India on missile defense issues. The United States continues actively to engage the Russian Federation in the area of missile defense cooperation. The joint declaration, signed by Presidents Bush and Putin last May, called for missile defense cooperation and reflects the new relationship between our countries.

To fulfill our commitment to strengthen confidence, increase transparency, and study areas for missile defense cooperation, a U.S./Russian missile defense working group has been established under the auspices of a ministerial-level group on strategic security. In this venue, the United States has proposed to begin voluntary and reciprocal information exchanges and visits, has made proposals for potential areas of new cooperation, and has also encouraged the Russian interaction with U.S. companies working on missile defense.

In conclusion, Mr. Chairman, missile defenses are an essential element of our overall national security policy to transfer U.S. defense capabilities to meet the requirements of a dynamic international security environment. As we move forward to field the missile defenses called for by the President, we will do so in cooperation with our friends and allies.

Our initial missile capabilities will be modest but the evolutionary approach we are pursuing will support continued research, development, and testing to improve our capabilities, as budgets and technologies allow and as developments of the threat necessitate.

Thank you very much, Mr. Chairman.

Chairman WARNER. Thank you, Secretary Crouch.

[The prepared statement of Secretary Crouch follows:]

PREPARED STATEMENT BY HON. J.D. CROUCH II

Mr. Chairman, it is an honor to come before your committee to provide details about our missile defense policy and the direction of our missile defense program, especially in light of the President's recent decision to begin initial fielding missile defense capabilities in 2004.

I would like first to identify the basic reasons for moving forward with the fielding of missile defense. We and our allies face serious and unpredictable threats to our homelands, populations, and interests, particularly including the proliferation of ballistic missiles armed with weapons of mass destruction. One of the reasons potential adversaries seek ballistic missiles is because we have no defenses against long-range missiles, and limited defenses against shorter-range missiles. Potential adversaries see these weapons as a means for exploiting an obvious U.S. and allied vulnerability.

Ballistic missiles have proliferated on a global basis and are in the hands of over two dozen states, many of which have chemical, biological, or nuclear weapons programs underway.

North Korea, for example, has had an active ballistic missile program for years, and has developed a wide-range of offensive missiles. It has deployed and exported missiles that can threaten our allies, friends, and forces abroad.

North Korea caught us by surprise when it launched its three-stage Taepo-Dong I space-launch vehicle/ballistic missile in August 1998. We knew North Korea was developing longer-range missiles, but we were surprised at the presence of a third stage on the missile. We have been surprised many times in the past by foreign ballistic missile developments. We likely will be surprised again in the future. The ex-

isting and emerging missile threats of which we are aware are significant; those we can see now only in part almost certainly will be more severe.

For example, North Korea has the Taepo Dong II long-range missile capable of reaching parts of the United States with a nuclear weapon-sized payload, and it could be flight-tested at any time. According to the National Air Intelligence Center, the Taepo Dong II missile may be exported to other countries in the future. Iran and other countries also are working on space-launch vehicles and intercontinental-range ballistic missiles that could be ready for testing in the next few years.

We are moving forward with missile defense to help protect American territory and forces abroad, and our allies and friends against the use of missiles and weapons of mass destruction by unpredictable, and in some cases, irresponsible states.

In addition, some countries seek missiles and weapons of mass destruction to coerce us simply by threatening their use. Missile defenses will help to reduce our potential vulnerability to such coercive threats.

Finally, by reducing the value of ballistic missiles for coercion or use, our missile defense capability will help to dissuade countries from investing in ballistic missiles at the outset. Missile defense can help to reduce the proliferation of offensive missiles by reducing their value, and thereby reducing the demand for them. In this way defenses will provide a useful complement to our other non-proliferation efforts.

In light of this new security environment and the considerable progress made to date in missile defense technology, the President directed the Department of Defense to proceed with fielding initial missile defense capabilities in 2004 and 2005. We will build on the missile defense test range (known as the "test bed") that we have been constructing. As a result of our withdrawal from the ABM Treaty, the fielding of these initial capabilities no longer is prohibited. The initial missile defenses called for by the President will serve as a starting point for improving our defensive capabilities as budgets and technological progress allow, and as developments in the threat necessitate.

Finally, as the President has noted, because ballistic missile threats also endanger our friends and allies around the world, it is essential that we work together cooperatively to defend against them. To do so, the Department of Defense is developing and deploying missile defenses capable of protecting not only the United States and our deployed forces, but also our friends and allies; and we have structured our missile defense program in a manner that encourages participation by other nations.

With these general points in mind, allow me to elaborate on our approach to missile defense development and deployment, and how we are pursuing cooperative efforts with allies and friends.

U.S. DEFENSE GOALS AND CAPABILITIES-BASED PLANNING

From the start of this administration, our approach to developing and fielding missile defenses has been consistent with the Department's goal of transforming U.S. military forces and adopting a capabilities-based approach to planning. We begin with the recognition that we face a security environment where threats and potential adversaries are less predictable and more diverse than during the Cold War. Therefore, rather than organizing our defense planning around a fixed and largely static set of enemies, we now focus on how potential adversaries might fight and with what means.

The Nuclear Posture Review concluded that a mix of capabilities—offensive and defensive—is required to address the emerging missile threat, and to help meet the four broad defense goals outlined in the Nuclear Posture Review: to assure, dissuade, deter, and if necessary, defend and defeat. Missile defenses will help to:

Assure allies and friends that ballistic missiles threats will not coerce the U.S. from fulfilling its security commitments, or allow aggressors the means to undermine the cohesiveness and political stability of a coalition or alliance;

Dissuade potential adversaries from investing in or developing ballistic missiles and their associated nuclear, chemical, and biological warheads by reducing the value of such weapons;

Deter ballistic missile attacks and threats by reducing an adversary's confidence in the possible success of its missile attack, and by denying the political-coercive or military benefits associated with threatening an attack;

Defeat missile attacks and defend the population of the United States, its forces, allies, and friends should deterrence fail.

THE EVOLUTIONARY APPROACH TO FIELDING MISSILE DEFENSES

In applying capabilities-based planning to missile defense, we concluded that an evolutionary approach to acquiring and fielding missile defense was the best way

to address ballistic missile threats in a dynamic and unpredictable security environment.

The Department has been pursuing a broad-based research, development, and testing program to examine the full range of capabilities to intercept ballistic missiles of all ranges and in all phases of flight. On December 17, 2002, the President announced his decision to field in 2004 and 2005 initial defensive capabilities against long-range missiles, and additional capabilities against shorter-range missiles. As we field these capabilities, our development and testing program will continue to improve our defensive systems over time.

Under this evolutionary approach, we do not envisage a final or fixed missile defense architecture. Rather, the composition of missile defenses, including the number, type, and location of components, will change over time to meet the changing threat and take advantage of technological developments. The evolutionary approach to the acquisition and fielding of missile defenses is the best means for providing advanced capabilities to the warfighter, while continuously pursuing follow-on improvements in capability. This approach facilitates the timely delivery of a modest, but still useful defensive capability that can then be improved with the benefit of technical advancements and operational experience.

The severity of existing and emerging missile threats, and the potential for surprises, call for this approach to acquisition that permits the fielding of appropriate defensive capabilities as soon as technically practicable.

Fielding modest capabilities in the near-term will provide not only timely defensive coverage, it also will allow operational input from combatant commanders. This is especially important for the missile defense mission wherein there is little previous operational experience to serve as a guide.

Two good examples where we have taken a similar approach to the timely fielding of limited capabilities still in development are the Predator Unmanned Aerial Vehicle (UAV) and the Joint Surveillance and Target Attack System (JSTARS). Predator was begun as an Advanced Concept Technology Demonstration project in 1994, conducted its first flight test in 1995 and was first deployed in Bosnia in 1996. Since then, commanders in the field have provided valuable inputs on ways to improve the system and have continued to request this capability in other operational scenarios, including Kosovo, Iraq, and Afghanistan.

JSTARS aircraft were deployed in 1991 to participate in Operation Desert Storm even though they were still in development. The developmental aircraft flew on 49 combat sorties and accurately tracked mobile Iraqi forces. JSTARS developmental aircraft also flew 95 operational sorties in support of NATO peacekeeping mission Operation Joint Endeavor in December 1995, monitoring ground movements to confirm compliance with the Dayton Agreements.

In each case, the timely and limited deployment of a system still in development provided useful capabilities, and facilitated subsequent improvements in the systems.

Our evolutionary approach to missile defense similarly points to the initial fielding, in limited numbers, of those missile defense capabilities that have been demonstrated to work, and the subsequent improvement of these capabilities through incremental improvements, for example, by inserting new technologies when available.

We are moving forward with missile defense on the basis of a highly successful test program over the past 2 years. For example, since the beginning of 2001, we have had four successful tests out of five for the long-range, ground-based interceptor, three successful tests out of three for the short- to medium-range sea-based interceptor, and five successful tests out of seven for the short-range, ground-based interceptor. Where tests have failed, we understand what went wrong and have taken measures to correct the problem. In the next 2 years, we plan to conduct over 120 flight and ground tests.

Some test failures are to be expected with advanced technology development programs. Indeed many of our most successful programs have had significant test failures. For example, the Corona satellite program, which produced the first overhead reconnaissance satellites, suffered 11 straight test failures. The Vanguard program failed 11 of its first 14 tries. The Polaris sea-launched ballistic missile failed in 66 out of 123 flights.

Nevertheless, in each case, these programs continued in development, were successfully deployed, and made significant contributions to our national security. We have learned from our missile defense test successes and failures, and look forward to additional successful tests as we deploy the initial missile defense capabilities and work continuously to improve those capabilities.

INITIAL CAPABILITIES (2004–2005)

In December 2002 the President directed the Department of Defense to build on the missile defense test bed and begin deployment of missile defense capabilities in 2004 and 2005. These capabilities will serve as the starting point for the evolutionary improvement of our missile defense capabilities.

The capabilities planned for 2004–2005 include 20 ground-based interceptors (GBIs) against the intercontinental-range ballistic missile threat; 16 located at Fort Greely, Alaska and 4 GBIs at Vandenberg Air Force Base. The GBIs will be available on a continuous basis to intercept long-range missiles during their midcourse phase of flight, while the incoming enemy warheads are outside the atmosphere.

The Ballistic Missile Defense System supporting the GBIs will include an initial set of integrated sensors based on land and at sea, and cued by early warning sensors in space. We also have made requests to the United Kingdom and the Kingdom of Denmark to upgrade early warning radars on their territory to track ballistic missile threats from the Middle East. The UK has granted permission and we look forward to hearing from Denmark by this summer.

To address the medium-range threat, we plan to equip 3 existing Aegis-class ships with up to 20 Standard-Missile (SM–3) interceptors. This will provide a highly mobile missile defense capability to help protect U.S. forces and allies and provide some limited protection for the U.S. homeland against shorter-range missiles launched from ships off our coasts. We also plan to modify other sensors on 15 existing Aegis ships to support the overall ballistic missile defense system.

Finally, with respect to the short-range threat, we will continue to field additional air-transportable and mobile Patriot PAC–3 units with up to 346 PAC–3 missiles and 42 PAC–3 radars. The PAC–3 missile is the first upgrade of the Patriot system to feature a hit-to-kill missile that can help defeat chemical and biological threats, and is designed to protect U.S. and coalition forces in the field as well as limited geographic areas.

These initial capabilities may be improved later in the decade through additional measures that will lead, ultimately, to a multi-layered missile defense system. These include additional ground- and sea-based interceptors and PAC–3 units; introduction of the Theater High Altitude Area Defense system to intercept medium-range missiles at high altitude and the Airborne Laser that will use directed energy to destroy a ballistic missile in the boost phase; enhanced radars and other sensor capabilities; development of a common booster for boost and midcourse defense; and initial development and testing of space-based hit-to-kill interceptors.

The budget request for the Missile Defense Agency for fiscal year 2004 and fiscal year 2005 is $7.7 billion and $8.7 billion respectively. Included in this funding request is an additional $1.5 billion total for fiscal year 2004 and 2005 to provide those initial capabilities directed by the President for 2004 and 2005. Funding requests for our missile defense programs will remain relatively constant at roughly $8+ billion per year from fiscal year 2004 to fiscal year 2009. This represents less than 3 percent of the total defense budget over these years.

OPERATIONAL ISSUES

Fielding a layered missile defense system poses new operational command and control challenges. A key Presidential document used to organize U.S. forces, Unified Command Plan (UCP) 2002, assigns the U.S. Strategic Command (STRATCOM) responsibility for planning, integrating, coordinating, and developing the desired characteristics for sea, land, air, and space-based global missile defense operations. UCP 2002 addresses the missile defense command and control issue through the use of centralized planning with decentralized execution. Therefore, while STRATCOM will be given responsibility for planning, integrating, and coordinating global missile defense operations, NORTHCOM and other regional combatant commands will retain responsibility for defending their geographic areas of responsibility—including command and control over systems providing defense against ballistic missile attacks.

COOPERATION WITH ALLIES AND FRIENDS

As the President stated, it is essential that we work together with allies and friends to defend against ballistic missile threats. Accordingly, the Department of Defense is developing and deploying missile defenses capable of protecting not only the United States and our deployed forces, but also our friends and allies. For example, two of the capabilities we plan to operate in 2004 and 2005—sea-based missile defense and Patriot PAC–3—could provide some protection for allies against short- and medium-range ballistic missiles, depending on where they are located.

The United States also will structure its missile defense program in a manner that encourages industrial participation by other nations, consistent with U.S. national security. Countries will be encouraged to participate at whatever level they deem appropriate up to and including co-development and production of various systems. They might also provide in-kind contributions such as territory and facilities upon which to build components of our missile defense system.

There are a number of examples of U.S. missile defense cooperation with allies and friends around the world. For example, the U.S. has been working with Israel since the late 1980s to design and develop missile defense systems. U.S. and Israeli cooperative programs, such as the Arrow defense system, along with the sharing of U.S. missile launch warning information, will continue to assist Israel in the development of a ballistic missile defense capability to deter and, if necessary, defend against current and emerging ballistic threats. We are also helping Israel to address the threat via a co-production arrangement of Arrow components in the U.S.

Turning to Asia, the U.S. and Japan have engaged in missile defense research cooperation since the 1990s. These efforts have focused on sea-based missile defense efforts (Japan has acquired several AEGIS ship platforms), including components developed by Japan that could become part of an evolutionary development upgrade to the U.S. Navy's Standard Missile III (SM–3). The U.S. and Japan are scheduled to conduct joint flight tests of the SM–3 in fiscal year 2005/2006. We are exploring additional avenues to enhance missile defense cooperation with Japan.

Elsewhere in the Asia-Pacific area, we are working closely with South Korea as they proceed with their new air defense frigate development with the aim of including missile defense capabilities. We have an ongoing dialogue with India on missile defense issues and recently this dialogue expanded to include discussion of India's efforts to determine its own specific missile defense requirements. Likewise, we have met with officials from Taiwan in an effort to answer their questions regarding missile defense.

Turning to Europe, there is consensus in NATO on the need to develop and deploy missile defenses capable of protecting deployed forces against short- to medium-range ballistic missiles. The Alliance is undertaking a Theater Ballistic Missile Defense Feasibility study to examine options for protecting allied forces from ballistic missile threats of up to 3,000-km.

Because Europe increasingly is threatened by missiles of all ranges, we have encouraged the Alliance to expand its consensus on missile defense to include missile defenses capable of protecting all Alliance territory against the full range of missile threats. As a first step, the Alliance agreed at the November 2002 Prague Summit to initiate a new missile defense feasibility study to examine options for protecting Alliance territory, forces and population centers against the full range of missile threats.

The United States has had a long relationship with the United Kingdom in the area of missile defense research. Recently, British Secretary of State for Defense Geoffrey Hoon stated that "developing the capacity to defend against the threat of ballistic missile attack is in the interest of the UK and its people." We are in the process of deepening this relationship between our two nations to facilitate greater missile defense cooperation. The United States has requested and received permission by the United Kingdom to upgrade the early warning radar located at Fylingdales.

The governments of Germany, Italy, and the United States have been pursuing a multilateral research and development program to field a new mobile air and missile defense system capable of providing protection for forces on the move, the Medium Extended Air Defense System (MEADS). MEADS is expected to replace the U.S. Army's Patriot system in the next decade and has the potential to become the core short-range missile defense capability for the Alliance. Both Germany and Italy support MEADS and have programmed funding for the next phase of activities.

The United States continues to engage the Russian Federation actively in the area of missile defense cooperation. The Joint Declaration signed by Presidents Bush and Putin last May called for missile defense cooperation and reflects the new relationship between our countries. Our relationship no longer is focused on managing hostility, but instead, on building cooperation.

To fulfill our commitment to strengthen confidence, increase transparency and study areas for missile defense cooperation, a U.S.-Russian Missile Defense Working Group has been established under the auspices of the Ministerial-level Consultative Group on Strategic Security. In this venue the U.S. has proposed to begin voluntary and reciprocal information exchanges and visits, made proposals for potential new cooperation and also encouraged Russian interaction with U.S. corporations working on missile defense.

We already have some ongoing programs of missile defense cooperation. For example, we have conducted three successful Theater Missile Defense Exercises with the Russian Federation. A fourth exercise is planned in Moscow in the spring of 2005. These unclassified, computer-based exercises are designed to establish procedures for independent but coordinated operations in the event that our forces are deployed together against a common adversary.

We also are seeking to resolve issues that impede implementation of agreed cooperation programs. Negotiations continue on the Russian-American Observation Satellite (RAMOS) program. We also continue to discuss the Joint Data Exchange Center, which is held up by a disagreement over tax and liability provisions.

CONCLUSION

Missile defenses are an essential element of our overall national security policy to transform U.S. defense capabilities to meet the requirements of a dynamic international security environment. As we move forward in 2004 and 2005 to field the missile defenses called for by the President, we will do so in cooperation with our allies and friends. Our initial missile defense capabilities will be modest; but the evolutionary approach we are pursuing will support continued research, development, and testing to improve our capabilities as budgets and technology allow, and as developments in the threat necessitate.

Chairman WARNER. General Kadish.

STATEMENT OF LT. GEN. RONALD T. KADISH, USAF, DIRECTOR, MISSILE DEFENSE AGENCY

General KADISH. Good morning, Mr. Chairman and members of the committee. I would like to take just a few minutes to highlight for you some key points about the missile defense program and underscore the progress we have made.

In early 2001, we started structuring the missile defense program to develop capabilities to defend the United States, our allies, our friends, and deployed forces against all ranges of missiles in all phases of flight. With the support of Congress, and in particular this committee, we have made considerable progress in demonstrating key missile defense technologies and system integration.

Our testing and analysis gives us confidence that the "hit-to-kill" technology works and that we can take the initial steps we are proposing to provide modest initial defensive capability where none exists today. Altogether we have made great progress in our missile defense program. Our testing has been aggressive and productive.

Over the past 2 years, we have achieved four for five successful ground-based intercepts against long-range targets. We are three-for-three in our sea-based intercepts against medium-range targets. We were five-for-seven with the Patriot Advanced Capability-3, or PAC–3, against short-range targets. We are making steady progress with the airborne laser to develop the revolutionary speed-of-light technologies involved.

We have had failures and in all probability we will continue to have some failures. But this score card has increased our confidence in our basic technical approach. Last December, the President directed the Department of Defense to field an initial set of missile defense capabilities because of our technical progress and our total lack of missile defenses against intermediate and long-range missiles. Given our fielding approach, using the test bed we have been working on, and given our testing successes to date, and our analysis of them, I believe we are ready for this.

With the President's decision, we now have a basic near-term architecture for a limited system to address a range of missile

threats. I want to stress that we have no fixed long-term architecture. We will evolve and improve the capability of the Block 2004 system over time, so that when we propose to field initially in 2004 and 2005, it may evolve to look very different a decade later.

The number and type of missile defense assets and their locations and basing arrangements may be expected to change to make the system more integrated and even more capable. This is consistent with the approach I have described in previous hearings. We are building and fielding limited militarily useful capabilities as soon as they can be made available. We have said all along that when we do field, we will not field a system that will fully meet our missile defense needs. We will have limitations and gaps. Let there be no illusions there.

The system we will be fielding initially will be limited operationally. But we went down this road knowing that there would be limitations. We have a process that specifically is designed to make up for those limitations as soon as practicable. With an evolutionary capability acquisition approach, we put capability in the field, we test it, we use it, we get comfortable with it, we learn what works well and what does not work well, and we improve it as soon as we can.

Before the President's decision, the fiscal year 2004 President's budget would have reflected the development of a set of test bed capabilities that could have been made operational. Today we are asking Congress to authorize funds that would allow us to add to this test bed capability and make it operational in the 2004 and 2005 time frame. In other words, instead of building a test bed that might be used operationally, we are fielding an initial defensive capability we will continue to test.

Because of this relationship between initial defense capability and testing, we are asking that all funding associated with both efforts be under the defense-wide appropriation RDT&E.

Now with respect to the issue of operational testing before deployment, I would argue that what we are faced with today is a timing issue. This is a unique, unprecedented technology in its early stages of maturity. We have to strike a balance between our desire for perfection in missile defense as we deploy and our desire to have, as soon as possible, a defensive capability where none exists today; or can we do both? Can we continue to test the elements of the components of the system we might also use to defend ourselves? I believe we can.

Now, why do I believe that? Because we have shown the nuts and bolts of the missile defense capabilities we are planning to field and Block 2004 can work. Over the past 2 years, we have conducted a total of 55 flight tests and 60 ground tests; 17 of these tests were intercept tests. Each test builds our confidence. Now we know "hit-to-kill" works. We have had a significant degree of repeatability represented in the tests conducted to date. We are well along in our goal of demonstrating reliability.

Mr. Christie has clearly stated the relationship we are building and our objectives concerning operational tests. We will continue to work with Mr. Christie and his people to make the best decisions we can about missile defense.

Regardless of the names we apply to our testing, we must have assets and infrastructure in the field if we are going to begin to test the system under operationally realistic conditions. If we do not have the weapons and sensors fielded at operationally useful locations, we cannot really do a good job of hooking it all up to make sure it works. This program and this budget proposes to do just that.

Our intentions are to test the complete system as soon as possible. Over the next 2 years, we are planning another 68 flight tests, 58 ground tests, and about the same number of intercept tests as before. We have done the testing to have confidence to proceed. We want to continue to strike the right balance. The elements of the test bed will also have some inherent defense capability. We can do operational testing while having the system on alert. We should take advantage of that.

I believe, Mr. Chairman, that we are ready to take the next step in missile defense for another reason. Our test bed evolutionary approach to initial defensive capability is rational from a cost standpoint as well. We do not now have an adequate understanding to submit a budget for many tens of billions of dollars for a huge, fixed, long-term architecture. We do not need to.

We are able, however, to purchase some field capabilities in small numbers. This approach will allow us to control costs. With an increase of $1.5 billion over 2 years, we could provide this country with a modest missile defense capability where none exists today.

Mr. Chairman, America's missile defense program is on track. The Missile Defense Agency is doing what we told Congress it would do. Your support has been important to the progress we have made. We have listened to your concerns and have sought to address them in a responsible manner. Our tests and our analysis gives us confidence that we can take the first step toward initial defensive operations, while we continue to prove our new technologies and demonstrate missile defense combat utility through realistic testing.

I believe there is a tremendous benefit in putting this unprecedented technology into the field in manageable increments to provide some defense, to learn more about it, gain experience with it, and improve it over time.

Thank you, Mr. Chairman. I look forward to your questions.

Chairman WARNER. Thank you very much.

[The prepared statement of General Kadish follows:]

PREPARED STATEMENT BY LT. GEN. RONALD T. KADISH, USAF

Good morning, Mr. Chairman, members of the committee. It is an honor to appear before you to present the Department of Defense's Fiscal Year 2004 missile defense program and budget.

In early 2001 we restructured the missile defense program to develop the capability to defend the United States, our allies and friends, and deployed forces against all ranges of missiles in all phases of flight. With the support of Congress, we have made considerable progress in demonstrating key ballistic missile defense (BMD) technologies and system integration. Our testing and analysis give us confidence that hit-to-kill technology works and that we can take the initial steps we are proposing to bolster defenses against short- and medium-range ballistic missiles and introduce a modest defensive capability to defeat a limited long-range threat. Today I will review our progress, discuss why we are confident in our approach, and outline our plans and challenges ahead.

Over the past 2 years we have conducted several successful intercept tests. We achieved four for five successful long-range, Ground-based Midcourse Defense (GMD) intercept flight tests, demonstrating the hit-to-kill technologies of the Exo-atmospheric Kill Vehicle, critical sensor technologies, and the integration of many geographically dispersed missile defense assets. The failure of the most recent such test (Integrated Flight Test-10) last December resulted from the non-separation of the interceptor and the surrogate booster rocket. This was not a failure of new missile defense technology, but a failure of our quality control processes. We are increasing our already focused quality control efforts. We are taking steps to ensure this separation problem is not repeated. Furthermore, future GMD tests will no longer use the surrogate booster and instead will use one or both of the boosters currently under development.

We are three for three in our ship-based exo-atmospheric intercept tests. Last year Aegis BMD successfully completed its Aegis Lightweight Exo-Atmospheric Projectile (LEAP) Intercept (ALI) project. Based on these results we accelerated the insertion of the follow-on Aegis BMD capability into the test bed. Our third intercept in November 2002 was the first ever intercept of a ballistic missile in the ascent phase of flight.

Patriot Advanced Capability 3 (PAC–3) has made significant strides. Since January 2001, we have had five for seven successful intercepts of ballistic missile targets and have begun fielding the first PAC–3 missiles. We also executed more than a dozen successful test flights of the Airborne Laser (ABL) aircraft, completed significant aircraft modifications, and accomplished successful subsystem testing and full-up ground-tests of the first laser module. While we are in the difficult phase of integrating the components into the ABL, our progress to date has increased our confidence that ABL can eventually be integrated into the BMD system (BMDS).

Mr. Chairman, America's missile defense program is on track. The Missile Defense Agency is doing what we told Congress it would do. We listened to your concerns and have sought to address them in a responsible manner. We have faced significant technical and management challenges, but through aggressive testing we have proven that hit-to-kill technology works. We have demonstrated system integration through complex system testing. These tests, combined with analysis of simulations and exercises, give us confidence that the system can take the first steps toward initial defensive operations while performing as a test bed for further realistic testing and continued spiral development.

The President's fiscal year 2004 budget will allow us to continue this significant progress and is structured to incorporate the recommendations of the Defense Science Board summer study of 2002.

EVOLUTIONARY APPROACH TO MISSILE DEFENSE

The BMD system involves many sensors and interceptors that are integrated and layered to enable engagements against hostile missiles in the boost, midcourse, and terminal phases of flight. Layered defenses can allow multiple shot opportunities across all of the engagement segments and potentially within each one of those segments, greatly enhancing our ability to handle countermeasures and destroy in-flight missiles and their payloads.

As I have explained in past hearings, we are building the missile defense system using an evolutionary acquisition approach, so that the system's capability can be enhanced over time. Our plan continues to be one of incrementally providing the decision makers the ability to field militarily useful capabilities based on their technological readiness, suitability for operational use and threat developments.

Last December the President directed the Department to field an initial set of missile defense capabilities in order to reduce the vulnerabilities of the United States, our troops, and our allies and friends. Given our fielding approach, and given the successful testing we have accomplished to date, I believe we are ready for this. The proposed budget for fiscal year 2004 and across the 2004–2009 Future Years Defense Program (FYDP) supports Research, Development, Test, and Evaluation (RDT&E) activities to accomplish that goal. We plan to begin operating modest land and sea defense capabilities in 2004 to provide limited protection of our country as well as our troops and critical assets overseas.

In missile defense, we deal routinely with revolutionary technologies and unprecedented engineering requirements. The program we are currently executing recognizes the unique challenges we face and sets out a disciplined course to develop the BMD system in an evolutionary way. Having spent the last couple of years looking at different missile defense options, we are now narrowing our program activities and focusing on development and fielding of the most promising elements.

Consistent with the approach I have described in previous hearings, we are building and fielding limited, militarily useful capabilities as soon as they can be made available. This approach takes into account known and projected threats and the present state of technology. With a capability-based acquisition approach we put capability into the field, test it, use it, get comfortable with it, and learn what works well and what does not. We have structured test bed fielding opportunities to occur in "blocks" every 2 years to improve what we have fielded as needed. Block 2004 (initial defense capabilities) represents 2004–2005, Block 2006 represents 2006–2007, and so on. These blocks will deliver elements and components that are ready for continued rigorous testing and full integration into the system.

With the President's decision, we now have a basic near-term architecture for a limited system to address a range of missile threats. I want to stress that we have no fixed, long-term architecture. We will evolve and improve the capability of the Block 2004 system over time, so that what we propose to field initially in 2004 and 2005 may evolve to look very different a decade later. The number and type of missile defense assets and their locations and basing arrangements may be expected to change to make the system more integrated and capable.

We have adopted this evolutionary approach because a single acquisition cycle is not responsive to rapid changes in threat and technology and is not structured to deal with surprise. We want to avoid prematurely constraining system design by using the traditional requirements process and waiting up to 20 years or more for a defensive capability that would result from using traditional acquisition rules. In a world marked by increasing ballistic missile activity, our Nation, forces, and allies cannot afford to wait that long.

In using this evolutionary approach, we still have the ability to incorporate the discipline and intent of the traditional acquisition process. For example, the warfighting community has been heavily involved from the beginning in the development of system elements and components. We are successfully using a spiral development process to put new technologies into play more quickly than if we were to use the traditional approach. Spiral development requires regular dialogue and active participation between user and developer for delivering a militarily useful set of capabilities. Once we field the initial capability, uniformed personnel will operate the system.

Despite the many uncertainties we face, this approach allows us to be good stewards of the taxpayers' money. The President's recent announcement stands as a good example of this. We are not making an early commitment to large-volume serial production and very large-scale investments. Our fielding commitment will be scaled over time and rise with our confidence that we are on the right development path for this complex, multifaceted system.

AGGRESSIVE RESEARCH, DEVELOPMENT, AND TEST ACTIVITIES

As we prepare to implement the President's directive, we plan to continue the program's intensive testing activities up to and beyond the 2004–2005 timeframe. We have a single, robust RDT&E program dedicated to the development and demonstration of missile defense technologies and integration concepts. In fact, consistent with our investments over the past 2 years, the lion's share of the fiscal year 2004 budget request of $7.7 billion for the Missile Defense Agency, roughly $6 billion, will support RDT&E activities that are not directly tied to system fielding. Significant development efforts in fiscal year 2004 include continued work on Theater High Altitude Area Defense (THAAD), ABL, and kinetic energy boost-phase interceptors in the post-Anti-Ballistic Missile (ABM) Treaty environment.

These aggressive RDT&E activities are the basis for proceeding as the President has directed and for continuing development work to build a multi-layered BMD system. We will continue our practice of assessing these activities on a regular basis to see if they can be accelerated or whether they must be truncated or modified in some manner. RDT&E activities occurring in fiscal year 2004 will contribute to Blocks 2004, 2006, 2008, and 2010.

We are still evaluating the impact of our withdrawal from the ABM Treaty. The treaty successfully did what it was intended to do. It severely restricted missile defense development and fielding options. The President's action has made it possible to begin to develop and test aggressively the full range of missile defense technologies and pursue capabilities that make the most sense from the standpoints of technology, operations, and cost.

For example, as a result of the treaty withdrawal, Aegis BMD, the sea-based defense element, began its successful participation in GMD integrated flight tests conducted last October and December. While initially only collecting boost and ascent phase radar data, Aegis BMD has begun engineering efforts to become a full partici-

pant in future tests and will eventually provide fire control data to the BMD system.

Our intercept tests against long-range ballistic missiles are very complex, yet since October 1999 we were forced to restrict ourselves to the same intercept flight geometries because of artificial constraints in our current test bed and our obligation to remain compliant with the ABM Treaty. Today, in order to test our GMD interceptors, we must launch targets from Vandenberg, AFB in California and interceptors from Kwajalein Atoll in the Pacific Ocean. We are changing that. The test bed we are building will introduce flexibility into our test approach and help overcome some basic geographic and geometric limitations by allowing us to test weapons and sensors against ballistic missiles of all ranges along different azimuths and using different trajectories. For test purposes we will introduce variable target launch and impact points and engagement areas.

Robust, realistic testing is absolutely critical to developing an effective missile defense system. Over the past 2 years we conducted a total of 55 flight tests and 60 ground tests. Seventeen of these tests were flight-intercept tests. Each test builds our confidence in the BMD system. From our flight-testing, we know that the hit-to-kill approach works. We know our sensors can successfully detect and track the target and that our software algorithms can discriminate between reentry vehicles and basic decoys and debris. We know our battle management system can generate orders that put a kill vehicle in a position to achieve intercept. We will continue to refine and improve the system's performance in all areas. Our test program continues to add to our confidence that the basic technologies are sound and that they will work together to provide the Nation an effective BMD system.

Our program and budget will continue to maintain a high tempo of increasingly complex ground- and flight-testing. Over the next 2 years we are planning another 68 flight tests, 58 ground tests, and maintaining the same pace of intercept tests as before. We do system testing to give us confidence that we have the ability to integrate geographically dispersed missile defense elements and components into an effective system. This does not include the many experiments we conduct routinely, the modeling and simulation activity, and the wargame exercises. Our computer predictions are very valuable in this process and give us a great deal of confidence that we are on the right paths.

We remain committed to our aggressive testing approach, where we mature midcourse, boost, and terminal missile defense components and elements through rigorous testing under increasingly realistic and challenging conditions. When we have adequately demonstrated technologies, decisions can then be made concerning their integration into blocks for fielding. Testing activities remain central to what we do and are well supported within our funding request.

INITIAL DEFENSE CAPABILITIES

Congress has already funded plans to put five midcourse interceptors into the test bed in silos at Fort Greely in Alaska, develop Aegis BMD, and test the SM–3 interceptor at the Pacific Missile Range Facility in Hawaii. Other activities are currently underway to improve the missile defense test bed by upgrading or developing launch sites (including Vandenberg, AFB), radar sensors, battle management and command and control components, communications terminals and networks, and associated test infrastructure in the United States and the Marshall Islands (including airborne, sea-based, and ground-based data collection assets).

Today we are asking Congress to authorize funds that will allow us to add to this test bed and make it operational by 2004. These initial defense capabilities, fielded over a 2-year period, will include ground-based interceptors to counter long-range threats, sea-based interceptors to defeat short- and medium-range threats, additional PAC–3 units, and early warning and tracking sensors based on land, at sea, in the air, and in space.

Before the President's decision, the fiscal year 2004 President's budget would have reflected the development of a set of test bed capabilities that could have been made operational. Instead of building a test bed that might be used operationally, we are fielding an initial defensive capability that we will continue to test. All RDT&E activities will support the initial defense capability, and the system elements and components we field will continue to support RDT&E. Because of the relationship between initial defense capabilities and testing, we are asking that all funding associated with both efforts be under Defense-wide appropriations RDT&E. With the December announcement we have quickened the pace at which we are moving forward, but we have not changed the direction in which we are moving.

We are proposing to do in fiscal year 2004 what we said we were going to do in previous hearings, that is, field tested missile defenses a little at a time using a step

approach. The missile defense operations we are proposing are unprecedented, and there still is much to learn. I believe there is tremendous benefit in putting this unprecedented technology into the field, in manageable increments, to provide some defense, to learn more about it, gain experience with it, and improve it over time.

The Israeli Arrow program stands out as an example of how fielding militarily useful capability in block increments and in a timely manner can work and how successful it can be. With only four successful intercept flight tests, Israeli officials declared their first Arrow battery operational on October 17, 2000 and fielded that country's first capability to defeat incoming ballistic missiles launched from nearby states. The Israeli system has been operational for more than 2 years now, and during that time it has conducted additional intercept and flight tests to enhance the system's performance. Plans are moving forward to augment it even further. Surrounded by states having an active interest in ballistic missiles, Israel found a way to field a limited defensive capability on an accelerated timeline and at a time when it could not afford to wait for system testing to be completed.

We in the United States, of course, are not strangers to fielding an unprecedented military capability on an accelerated schedule. Our leadership struggled in the early stages of deploying the first reconnaissance satellites and land- and sea-based ballistic missiles. Urgent national security requirements pressed us to deploy capability soon, and through trial and error we did. Despite test failures, the country persevered and made militarily useful capabilities operational. Since that time, we have dramatically improved the capabilities of those first-generation systems. The parallels between these pioneering programs and the missile defense program are clear.

I believe, Mr. Chairman, that we are ready to take this next step in missile defense. Our fielding approach will not only help rationalize the force structure we deploy from the technological and threat standpoints, but also from the standpoint of cost. We do not now have adequate understanding to submit a bill of many tens of billions of dollars for a huge, long-term fixed architecture. We are able, however, to purchase, produce, and field capabilities in small numbers. This approach will allow us to control costs. With a modest investment and increase by the Department of a total of $1.5 billion spread over the fiscal year 2004 and 2005 budgets, we will provide this country with militarily useful capabilities where none exists today.

In short, this $1.5 billion primarily will add a small number of ground-based interceptors as well as more SM–3 interceptors to the test bed capability we are already building. Future fielding decisions, as we have said all along, will be made in the outlying years based on the progress of technology and the evolution of the threat, subject to the annual congressional appropriations process.

CONFIDENCE IN INITIAL DEFENSIVE OPERATIONS

In assessing our level of confidence with the planned initial missile defense capabilities, we have to strike a balance between our desire for perfection in the missile defenses we deploy and our desire to have as soon as possible a defensive capability where none exists today.

Adequate testing is the key to achieving that balance. While this testing may not fit the mold of classical operational testing that would traditionally take place prior to full-rate production, we do follow a testing discipline that I believe can give us the confidence to say that what we deploy will work as we have said it would under threat circumstances that we believe we might have to face.

I believe that to strike the right balance we must go through an intense period of testing to demonstrate that the technologies on which we are relying can work consistently under conditions that are increasingly stressful and realistic. We have spent the past 2 years demonstrating the technologies we propose to employ in the Block 2004 Test Bed. We have said all along that when we do field we will not field a system that will fully meet our missile defense needs. We will face limitations and have gaps, let there be no illusions there. The system we are initially fielding will be limited operationally. But we went down this road knowing that there would be gaps and with a process that is specifically designed to fill those gaps and make up for performance limitations as soon as practicable.

Among the limitations that should be included here is that of operational experience. We need to build operational experience over time with the system that will be guarding our Nation and our troops. There is no better way to do that than to put basic elements out into the field and to begin working with those assets to develop the doctrine and concepts of operation we will need and to train the military personnel who will operate it.

We have spent significant amounts of money on testing the GMD and Aegis BMD elements of system. All of the tests to date have been what we have called "develop-

mental tests." Regardless of the names we apply to our testing, we must have assets and infrastructure in the field if we are going to begin to test that system under operationally realistic conditions. If we do not have the weapons and sensors fielded at operationally useful locations, we cannot really do a good job of hooking it all up to make sure it works.

The President's decision allows us to put this materiel out in the field for testing, in locations that make sense from an operational point of view. Given the recent events in the international security environment, the President's decision reflects an urgent need to make that test bed as operational as we possibly can. That decision also recognizes that we will not be fielding the perfect system at the outset.

What we are faced with today is a timing issue. Must we do what has been traditionally called "operational testing" before we can say that we have a capability we can use in an extreme security situation, or can we do both? Can we continue to test the elements and components of a system we also could use to defend ourselves if needed? I believe we can.

Why do I believe that? Because we have shown that the nuts and bolts of the missile defense capabilities we are planning to field in Block 2004 can work. We have had a significant degree of repeatability represented in the tests we have conducted to date, and we are well along in our goal of conducting these tests reliably. We are now to the point where we need to assemble selected missile defense elements into a test bed that will permit operationally realistic testing using different azimuths and trajectories, different launch and target points, and different arrangements in our sensors and weapons. That test bed will allow us to test in different ways so that we can refine our all-too-important battle management and command and control infrastructure. The elements of the test bed also will have some inherent defense capability. We can do operational development testing while having the system on alert. We should take advantage of that.

Our intentions are to test the complete system and to be ready to respond to ballistic missile threats against the United States, our deployed forces, and our friends and allies. We have conducted the rigorous testing needed to give us the confidence that we are far enough along to do operationally realistic testing in an integrated way. Testing will always be an important part of this system—always. We will always be improving what we have in the field. The budget we have submitted will support the testing required to ensure that the elements of the Block 2004 system we would like to field will adequately serve the defense needs of this Nation.

Our RDT&E activities are extensive and are important part of our acquisition approach. Below are three areas of special interest.

BMD System Radar Activity

The MDA's Family of Radar concept is continuous and flexible global detection, tracking, discrimination, and hit assessment. Ideally, we want to be able to watch missile payloads deploy and accomplish prompt and early battle assessment. We are currently pursuing multiple sensor technologies and identifying and developing sensors to give the BMD system the "eyes" it will need. In order to identify the most promising technologies and reduce risk, we are investigating, in parallel, sensor alternatives on land-, sea-, air- and space-based platforms to add robustness to the BMD system and improve opportunities to collect multiple phenomenology on the threat missile or target complex. Evaluations of different sensor and weapon combinations and alternatives will help us assess their overall benefit to an integrated, layered BMD system. An important element in this effort is the mobile Sea-Based X-Band radar (SBX), which we plan to build by September 2005 to greatly improve both testing and our initial defense capability.

The BMDS Radar project, a new activity, is funded in the fiscal year 2004 budget to expand the engagement battle space and assess missile defense concepts of operation that we were not allowed to consider under the ABM Treaty. We will validate the concept of forward-basing and sensor layering and evaluate advanced algorithms using both MDA- and non-MDA-owned sensors. Current plans call for the BMDS radar to be available for integration into the test bed in late 2006. We will support continuous sensor research to improve capabilities and develop advanced algorithms for Block 2008 and beyond.

BMD System Infrared Sensor Activities

The Department restructured the Space Based Infrared System-Low (SBIRS-Low) element in fiscal year 2002, renaming it the Space Tracking and Surveillance System (STSS). We will explore new technologies to enhance missile detection, improve reporting on ballistic missile launches regardless of range, azimuth, or launch point, and provide critical midcourse tracking and discrimination data.

The Russian-American Observation Satellites (RAMOS) project is a cooperative effort between the United States and the Russian Federation to improve early warning technologies. RAMOS represents an innovative space-based sensor R&D initiative. We are proceeding towards a joint Preliminary Design Review this summer and expect to conclude the design and development phase in early fiscal year 2005. The United States is actively striving to reach a bi-lateral agreement to conduct activities beyond the design and development phase. If we are able to move forward with this project, we would launch two satellites in late fiscal year 2008.

BMD System Interceptor Activity

Our longer-term goal is to develop low-cost enhanced interceptors for integration with different platforms to defend against missiles in the boost, midcourse, and exoatmospheric terminal phases of flight. We are consolidating all next-generation kinetic energy interceptor (booster and kill vehicle) development efforts and placing them under our BMDS Interceptor activity. Relying heavily on existing hardware and proven technology, we will develop a hit-to-kill boost phase capability by Block 2008 and deliver capability enhancements for Block 2010 and beyond.

In fiscal year 2004 we will begin developing a space-based kinetic energy interceptor test bed to explore the technological feasibility and operational advantages of engagements from space. This plan is consistent with the Defense Science Board's recommendation, released last August, to establish a comprehensive development program for a space-based kinetic system. Following up on last year's successful experiments to understand key sensor technologies, we will conduct in 2004 a Near Field Infra-Red Experiment to observe from space a boosting rocket. This data will assist in the selection of seeker and sensor technologies for a ground-based boost interceptor and development of interceptor guidance and homing algorithms.

BLOCK ACTIVITIES AND BUDGET

We are working within the MDA and with the Department's operational community to meet the President's objective to establish an initial defense capability in 2004, which begins with Block 2004. The following describes by block our planned fielding opportunities across the FYDP.

Block 2004

This block continues development and integration of elements, components, and facilities in the test bed. Block 2004 RDT&E funding will deliver capabilities directed by the President for operational use in fiscal year 2004–2005. We plan to add different capabilities to point-defense capabilities already provided by PAC–3 units. This initial fielding will grow the RDT&E program and expand the physical infrastructure of the test bed.

Funds in this block will enable us to conduct major target and countermeasure development and capability demonstrations, integration tests, and experiments. We are investing in a substantive system test program to test system command, control, and battle management (C^2BM) and communications across the elements. The Block 2004 Master Test Plan lays out the strategy for conducting a comprehensive set of integrated and distributed ground- and flight-tests to verify performance and characterize the capability of the system. This test program will form the basis of operational and military utility assessments of the Block 2004 initial defense capability.

We will have three major system integration flight tests, the first of which is a large-scale integration event that tests C^2BM and communications during multiple element intercept tests. We plan to demonstrate C^2 capabilities and communications among C^2 and battle management nodes, weapons, and sensors and to continue work with the Services, Combatant Commands, and the Office of the Secretary of Defense to ensure BMD system interoperability with legacy and planned Department systems and standards.

We are requesting $3.2 billion in fiscal year 2004 to support RDT&E for fielding Block 2004. Our estimated expenditure for Block 2004 activities across the FYDP is $6.2 billion (see Table 1).

TABLE 1: BLOCK 2004 FUNDING FISCAL YEAR 2002–2009

($M Then-Year) [1]

Project	Fiscal Year								FYDP Fiscal Year 2004–2009	Totals Fiscal Year 2002–2009
	2002	2003	2004	2005	2006	2007	2008	2009		
C^2BMC Block 2004	21	80	114	79	0	0	0	0	194	295
Hercules Block 2004	0	0	18	27	0	0	0	0	46	46

TABLE 1: BLOCK 2004 FUNDING FISCAL YEAR 2002–2009—Continued

($M Then-Year) [1]

Project	Fiscal Year								FYDP Fiscal Year 2004–2009	Totals Fiscal Year 2002–2009
	2002	2003	2004	2005	2006	2007	2008	2009		
Joint Warfighter Support Block 2004	0	0	24	13	0	0	0	0	37	37
Test & Evaluation Block 2004	47	57	37	33	0	0	0	0	70	174
Targets & CM Block 2004	75	104	197	170	0	0	0	0	367	547
THAAD Block 2004	808	888	622	635	65	0	0	0	1,322	3,018
GMD Test Bed Block 2004	636	452	1,205	868	0	0	0	0	2,073	3,161
Aegis BMD Test Bed Block 2004	413	440	648	894	98	0	0	0	1,640	2,492
ABL Block 2004	454	348	345	150	0	0	0	0	494	1,296
Totals	2,454	2,369	3,212	2,868	163	0	0	0	6,242	11,065

[1] Numbers may not add exactly due to rounding.

Boost Elements. We are developing directed energy and kinetic energy boost phase intercept capabilities to create a defense layer near the hostile missile's launch point. We require quick reaction times, high confidence decision-making, and redundant engagement capabilities to counter ballistic missiles in this phase.

ABL is currently under development to acquire, track, and kill ballistic missiles in boost phase using speed-of-light technology. ABL integrates three major subsystems (Laser; Beam Control; and Battle Management, Command, Control, Communications, Computers, and Intelligence (BM/C^{4}I)) into a modified commercial Boeing 747–400F aircraft. We will continue major subsystem integration and testing activities. Block 2004 activities involve completion of ground-testing, to include first light on the test bed aircraft, first flight of the complete weapons system, and the successful track and high-energy laser engagement of a missile-shaped target board dropped from high-altitude. In fiscal year 2005, we will deliver one aircraft for BMD system integration and testing and demonstrate a missile shoot-down against a boosting threat-representative target.

Midcourse Elements. Midcourse defense elements engage ballistic missiles in space after booster burnout and before the warhead re-enters the atmosphere. The GMD element defends against long-range ballistic missile attacks, and Aegis BMD will counter from the sea medium- and short-range ballistic missiles.

The Department's plans are to add by the end of fiscal year 2004 1 more Ground-Based Interceptor (GBI) at Fort Greely in Alaska for a total of 6 GBIs at that site, and 4 interceptors at Vandenberg, Air Force Base, for a total of up to 10 interceptors at both sites. The decision to develop two interceptor sites is consistent with our layered approach and operational concept and will allow us to work through critical integration, battle management, and command and control issues early on.

There are a number of other activities we need to undertake in fiscal year 2005. We are asking for appropriations to produce up to 10 additional GBIs for fielding at the Fort Greely site, for a total of 16 interceptors in Alaska and 4 in California. We also plan to produce by the end of 2005 between 10 and 20 SM–3 missiles for deployment on 3 Aegis ships converted to the missile defense mission. Because we are starting from a base of zero, each interceptor we field between now and 2005, up to the full complement of 20 ground-based and 20 sea-based interceptors, will increase significantly our overall capability to defend this country, our troops, and friendly countries against long- and medium-range threats.

Included in the test bed and as part of the initial missile defense architecture are plans for integrating Early Warning Radars (EWR) at Eareckson AS (the Cobra Dane radar at Shemya, Alaska) and Beale AFB (Upgraded EWR). We will add to this infrastructure multiple fire control nodes and improved lines of communications connecting sites in Alaska and the continental United States using fiber optics and satellites. The administration is working to secure allied approval to upgrade and integrate into the BMD system early warning radars currently located in the United Kingdom and Thule, Greenland to view threat missiles launched out of the Middle East. The United Kingdom already has approved the use of the Fylingdales radar. We also plan to build by September 30, 2005 a Sea-Based X-Band Radar (SBX) to improve the testing regime and enhance initial missile defense system performance.

We have made dramatic progress in recent months with the GMD element, including in the areas of silo construction, development of a nationwide communica-

tions network, and integrated flight-testing. We have excavated six silos at Fort Greely, 7 weeks ahead of schedule, and we are in the process of constructing and establishing appropriate security for multiple test bed facilities at Fort Greely and Eareckson.

By the end of 2005, we will upgrade SPY–1 radars on 15 Aegis warships for enhanced surveillance and track capability. Three prototype surveillance and track Aegis destroyers will be available starting in 2003; we will modernize additional destroyers for surveillance and track and BMD engagement capability. Two Aegis cruisers in addition to the U.S.S. *Lake Erie*, our test cruiser, will receive BMD engagement modifications.

The next SM–3 flight test, scheduled for later this year, will use a reengineered Monolithic Divert and Attitude Control System (MDACS) for the first time in the interceptor's kinetic warhead. MDACS has proved to be more reliable than the previous model, faster to build, and less expensive. Five at-sea flight tests and numerous tracking exercises, including participation in GMD integrated flight-tests, are planned through 2005. Our cooperative research with Japan will continue to enhance the capabilities of the SM–3 interceptor. The focus of that research is on four components: sensor, advanced kinetic warhead, second stage propulsion, and lightweight nosecone.

Terminal Elements. THAAD is designed to be rapidly deployable and protect forward-deployed U.S. and friendly troops, broadly dispersed assets, population centers, and sites in the United States by engaging short- to medium-range ballistic missiles or their payloads at endo- and exo-atmospheric altitudes. THAAD could have more than one intercept opportunity against a target, a layering potential that makes it more difficult for an adversary to employ countermeasures effectively. This terminal defense capability will help mitigate the effects of a WMD payload.

This year we will complete missile and launcher designs, initiate manufacturing of missile and launcher ground test units, and begin testing the first completed radar antenna. We will continue fabrication of the second radar and building the battle manager and launcher test beds. A total of four exo-atmospheric flight tests at the White Sands Missile Range, New Mexico are planned for fiscal year 2004–2005.

PAC–3 provides terminal missile defense capability against short- and medium-range ballistic missiles, anti-radiation missiles, and aircraft with a low radar cross-section employing advanced countermeasures. PAC–3 successfully completed initial operational testing last year, intercepting ballistic missiles, aircraft, and cruise missiles. The tests uncovered problems that we have since corrected in collaboration with the Army. We have completed development of the PAC–3 missile and made C^2BM modifications to enable PAC–3's integration into the BMD system. We will continue to conduct PAC–3 tests this year. Later in Block 2004 we will demonstrate PAC–3's integration with other BMD system elements.

With the support of Congress, the Department already has accelerated PAC–3 missile production and currently has a plan to increase that production rate to 20 missiles per month in 2005. Given current production plans, by the end of 2005 the PAC–3 inventory will stand at 332 missiles.

The Department is transferring this month PAC–3 procurement and RDT&E funding to the Army, which is reflected in the Army's fiscal year 2004 budget request. The MDA will retain responsibility for defining and testing BMD system interoperability and continue to work with the Army on PAC–3 engineering, development, and testing. The Department is currently preparing to transfer later this year RDT&E funding for the Medium Extended Air Defense System (MEADS) from the MDA to the Army.

The Arrow Weapon System, developed jointly by the United States and Israel to counter short- to medium-range ballistic missiles, is operational at two sites in Israel and interoperable with U.S. missile defense elements. We worked with Israel to deploy its first two Arrow batteries, and are currently assisting that country to procure a third battery.

The Arrow System Improvement Program, a spiral development upgrade of the current operational system, includes technical cooperation to improve the performance of the Arrow system and test it at a U.S. test range. The first flight test was conducted successfully on January 5, 2003. We continue to support additional Arrow flight-testing to assess technology developments and overall system performance and to collect data and conduct annual hardware-in-the-loop exercises with Israel to enhance interoperability.

Block 2006

Block 2006 work continues to improve existing capabilities and provide new sensors and interceptors for integration with fielded elements. Our focus will be on

evolving and integrating the capability to achieve a more synergistic and layered BMD system. We will continue rigorous system and element flight-test demonstration and validation efforts and use wargames to help develop concepts of operation and operational procedures.

We are requesting $2.2 billion in fiscal year 2004 to support RDT&E for Block 2006. Our estimated expenditure for Block 2006 activities across the FYDP is $11.3 billion (see Table 2).

TABLE 2: BLOCK 2006 FUNDING FISCAL YEAR 2002–2009

($M Then-Year) [1]

Project	Fiscal Year								FYDP Fiscal Year 2004–2009	Totals Fiscal Year 2002–2009
	2002	2003	2004	2005	2006	2007	2008	2009		
C^2BMC Block 2006	4	27	53	104	116	0	0	0	273	304
Hercules Block 2006	0	0	19	18	45	45	0	0	127	127
Joint Warfighter Support Block 2006	0	0	0	12	24	12	0	0	48	48
Test & Evaluation Block 2006	1	1	2	9	41	39	0	0	92	93
Targets & CM Block 2006	1	4	32	110	213	172	0	0	526	530
THAAD Block 2006	0	0	109	208	598	498	113	0	1,525	1,525
GMD Block 2006	2,460	2,109	1,605	1,774	1,354	1,235	0	0	5,969	10,538
Aegis BMD Block 2006	0	0	24	73	377	299	0	0	773	773
ABL Block 2006	0	0	10	86	150	79	81	55	461	461
BMDS Radars Block 2006	0	0	101	145	134	0	0	0	380	380
STSS Block 2006	55	232	276	285	285	204	75	35	1,160	1,447
Total	2,520	2,372	2,232	2,823	3,335	2,583	270	90	11,333	16,225

[1] Numbers may not add exactly due to rounding.

Boost Elements. We will enhance and test the integration of the ABL aircraft into the BMD system. Candidate enhancements include improvements in BMC^4I, interoperability, pointing and tracking, and target engagement. We will continue evaluation of the ABL test aircraft capability against a range of threats. This aircraft will be available to provide an emergency operational capability except for a maximum of 6 months during fiscal year 2007 when it may undergo modifications and enhancements.

Midcourse Elements. We plan to enhance defensive capability and further develop the test bed by maturing hardware and software of all GMD interceptor, sensor, and C^2BM components. We will continue our ground- and flight-testing to demonstrate improved weapon and discrimination performance and critical interfaces with external sensors. We also plan to complete the upgrade of the Thule EWR should we get approval from Denmark.

Aegis BMD flight missions will incorporate remote engagements of targets as well as demonstrations against intermediate-range ballistic missile (IRBM) targets. We will continue development of Aegis BMD sensor discrimination capability. Prototype BMD signal processors will be tested aboard Aegis ships with SPY–1 radar modifications. SM–3 missile deliveries will begin in 2004. Our plans are to build an inventory of up to 35 SM–3 interceptors by the end of 2006. Also, if directed, we would prepare to field up to 20 additional SM–3 interceptors in 2007. We will proceed with our cooperative BMD research with Japan to enhance the SM–3. We have two joint flight tests of the advanced nosecone planned in the fiscal year 2005–2006 timeframe, and we will continue to look at possibilities for co-development.

Terminal Elements. The THAAD interceptor begins in the third quarter fiscal year 2006 a series of five flight tests that are scheduled to conclude in first quarter fiscal year 2008. We will improve THAAD's exo-atmospheric and endo-atmospheric endgame discrimination capability against increasingly complex targets.

Sensors. Current plans call for a new forward-based radar in late 2006 for positioning close to the threat at sea or on land. Enhanced forward-based sensor capabilities and improved sensor netting will enable the BMD system to handle threats posing a more difficult discrimination challenge and provide a launch-on-remote capability. A midcourse radar will be added as part of our layered approach. Additional radar configurations will be procured as necessary to satisfy Block 2006 objectives.

Current plans are to launch two low-earth orbit satellites in fiscal year 2007 to validate space-based sensor concepts for target acquisition, tracking, and discrimina-

tion and to provide a space node for the test bed. STSS will improve in subsequent blocks to provide data fusion, radar/sensor cueing over-the-horizon, and interceptor handover and fire control. Production alternatives will be evaluated at least annually based upon element performance and integrated BMD system performance.

Block 2008

Block 2008 represents a major step in BMD system evolution. We plan to complete multiple layers of weapons and sensors, based on fixed and mobile platforms, to counter a range of ballistic missiles. This block will include C^2BM components that enable integrated control of all system assets throughout the battlespace. Primary development projects include adding boost phase weapons to the test bed, integrating space sensor platforms, and fusing multi-sensor discrimination products. We will integrate capability-based targets and payload suites (to include new and more complex countermeasures) into our system testing to demonstrate effectiveness against evolving threats.

We are requesting $572 million in fiscal year 2004 to support RDT&E for Block 2008. Our estimated expenditure for Block 2008 activities across the FYDP is $16.3 billion (see Table 3).

TABLE 3: BLOCK 2008 FUNDING FISCAL YEAR 2002–2009

($M Then-Year) [1]

Project	Fiscal Year								FYDP Fiscal Year 2004–2009	Totals Fiscal Year 2002–2009
	2002	2003	2004	2005	2006	2007	2008	2009		
C^2BMC Block 2008	0	0	1	12	27	144	145	147	476	476
Hercules Block 2008	0	0	19	17	17	17	62	60	192	192
Joint Warfighter Support Block 2008	0	0	0	0	0	12	29	31	71	71
Test & Evaluation Block 2008	0	0	1	1	4	13	85	87	190	190
Targets & CM Block 2008	0	0	0	57	77	68	239	253	694	694
THAAD Block 2008	0	0	0	0	237	227	369	300	1,134	1,134
GMD Block 2008	0	0	0	0	0	0	878	877	1,756	1,756
AEGIS BMD Block 2008	0	0	0	116	186	322	470	386	1,481	1,481
ABL Block 2008	11	237	256	402	582	561	366	267	2,435	2,683
BMDS Radars Block 2008	0	0	0	0	0	136	102	22	261	261
STSS Block 2008	0	0	0	0	0	82	177	89	348	348
BMDS Interceptor Block 2008	54	100	296	529	1,013	1,562	1,939	1,890	7,229	7,383
Total	65	337	572	1,134	2,145	3,146	4,862	4,409	16,268	16,669

[1] Numbers may not add exactly due to rounding.

Boost Elements. ABL will integrate new technologies to improve performance and lethality and enhance operational suitability. We will continue development of promising technologies for insertion into Block 2008 and beyond and design and develop a system-level ground-test facility for ABL. We plan to test a second ABL aircraft in the test bed during Block 2008.

Plans also are to develop and integrate a mobile ground-based boost phase hit-to-kill capability into the test bed for flight-test demonstration. We will initiate a space-based test bed development to determine the feasibility of intercepting missiles from space. Initial on-orbit testing would commence with three to five satellites in Block 2008.

Midcourse Elements. We will conduct up to three GMD flight-tests annually to demonstrate advanced engineering and pre-planned equipment improvements for the boosters, interceptors, early warning and fire control radars, and C^2BM and communications software builds. We plan to enhance the Aegis Weapons System AN/SPY–1 radar to improve discrimination for engaging both unitary and separating targets. We will assess GMD integration with the BMDS Interceptor and also test the interceptor on board an Aegis warship.

Terminal Elements. We will complete the development and testing of the THAAD weapon system. We are planning up to eight developmental and operational-type flight tests to stress interceptor, radar, and C^2BM performance in realistic scenarios that include advanced countermeasures.

Sensors. Our work will build on the initial BMDS Radar configuration and conduct sensor research to improve capabilities and develop advanced algorithms. We

will improve Family of Radar coverage, performance, and flexibility and address vulnerability within the context of the overall BMD system global sensor network. STSS operations will continue to be integrated with other BMD elements in the test bed and support enhanced C^2BM development initiatives. STSS will demonstrate the ability to acquire, track, and discriminate midcourse objects with space-based infrared sensors.

Block 2010

Work in this block will continue spiral development projects for weapon and sensor improvements and platform integration. C^2BM and communications improvements will enable highly resolved sensor data to be exchanged with all BMD system elements.

We are requesting $24 million in fiscal year 2004 to support RDT&E for Block 2010. Our estimated expenditure for Block 2010 activities across the FYDP is $4.7 billion (see Table 4).

TABLE 4: BLOCK 2010 FUNDING FISCAL YEAR 2002–2009

($M Then-Year) [1]

Project	Fiscal Year								FYDP Fiscal Year 2004–2009	Totals Fiscal Year 2002–2009
	2002	2003	2004	2005	2006	2007	2008	2009		
AEGIS BMD Block 2010	0	0	0	0	0	8	104	145	257	257
STSS Block 2010/2012	179	55	24	44	232	565	750	1,065	2,680	2,914
BMDS Interceptor Block 2010	0	0	0	0	97	146	585	974	1,803	1,803
Total	179	55	24	44	329	719	1,439	2,184	4,740	4,974

[1] Numbers may not add exactly due to rounding.

Boost Elements. Block 2010 activities will improve exo-atmospheric BMDS Interceptor performance and enable greater basing mode flexibility, to include possible adaptation to sea-based platforms. We will develop and test an advanced space-based test bed to augment or replace the Block 2008 space-based test bed.

Midcourse Elements. We will continue flight-testing improved weapon and sensor components and work toward the integration of an advanced BMDS Interceptor. Aegis BMD will incorporate prior block developments into the Navy-developed next-generation, open architecture Combat System.

Terminal Elements. THAAD will integrate proven technologies to enhance its capability against longer range and faster ballistic missiles without sacrificing existing mobility and performance. Fielding and survivability upgrades also are planned to demonstrate a capability against both IRBM and ICBM threats.

Sensors. New technologies will be inserted into subsequent STSS blocks to provide precise threat tracking and improved discrimination. We will develop and launch a satellite with improved sensors integrated into the first common satellite bus, and develop and integrate advanced ground station equipment and software. The Block 2010 STSS will deliver a space-based capability to acquire, track and discriminate ballistic missiles based on larger aperture track sensors, increased vehicle lifetime, and increased, near-real-time on-board data processing. The funding also includes launch services for Block 2010 satellites. C^2BM funding focuses on integrating STSS data into the sensor net.

MISSION AREA INVESTMENTS

Our Mission Area Investments are investments common to the entire BMD system that enable us to implement over time our block fielding approach. Mission Area Investments maintain core development and testing infrastructure and facilitate the integration of future block capabilities. The President's budget requests $1.69 billion in fiscal year 2004 for these investments. This program activity accounts for about $11.3 billion, or just over 20 percent of the total funding estimate across the FYDP. Table 5 provides a detailed breakdown of funding for each investment activity.

TABLE 5: MISSION AREA INVESTMENTS FUNDING FISCAL YEAR 2002–2009

($M Then-year) [1]

Investment Activity	Fiscal Year								FYDP Fiscal Year 2004–2009	Totals Fiscal Year 2002–2009
	2002	2003	2004	2005	2006	2007	2008	2009		
System Engineering	236	397	436	474	501	510	580	578	3,079	3,713
C^2, BM & Communications	16	16	119	125	178	201	204	218	1,045	1,076
Test & Targets	359	332	338	332	328	352	316	333	1,998	2,688
International Programs	211	205	148	215	129	100	89	89	769	1,185
Advanced Concepts	347	176	388	418	363	437	524	534	2,664	3,187
Program Operations	232	170	264	252	283	306	317	333	1,754	2,156
Total	1,400	1,296	1,692	1,817	1,783	1,904	2,029	2,083	11,309	14,005

[1] Numbers may not add exactly due to rounding.

The significant Mission Area Investments are as follows:

System Engineering

The System Engineering activity defines, manages, and integrates the layered BMD system. Capability-based acquisition requires continual assessment of technical and operational alternatives at the component, element, and system levels. Our system engineering process assesses and determines system design and element contributions and the impact of introducing new technologies and operational concepts to ensure properly synthesized system blocks. These activities provide the technical expertise, tools, and facilities to develop the BMD system and maintain an intelligence and research capability to ensure that the system evolves in a way that is responsive to known and anticipated threats.

We are increasing our focus on risks related to producibility, manufacturing, quality, cost, and schedule of the BMD system elements. We dedicate resources to examine the applicability of technology to system needs and transition readiness. Industrial and manufacturing investment strategies for achieving system affordability and facilitating insertion of successive new capabilities are increasingly vital to the program.

Command and Control, Battle Management & Communications (C^2BMC)

Our activities related to C^2BMC create interoperability among a wide variety of legacy systems and emerging elements over joint and coalition networks. The C^2BMC activity will continue development and integration of the C^2BM and communications functions for the BMD system. By fielding software development spirals that improve system synergism, integration capability, and interoperability with external systems, this activity expands the inherent C^2BM capabilities of fielded terminal, midcourse, and boost defenses. Communications funding will develop and improve BMD system-wide communication links and sensor netting functions to enable enhanced early warning and quicker interceptor response times. The Joint National Integration Center (JNIC) provides a common environment for the BMD elements to conduct experiments, demonstrations, and exercises and is a key-operating C^2BM component of the test bed.

BMD Tests & Targets

The missile defense program includes significant test and evaluation infrastructure, test execution capabilities, and analytical tools for program-wide use. The Agency conducts risk reduction, developmental, and operational element and component testing as well as tests to collect critical measurements, such as plume signatures. We also have a rigorous measurements test program to collect data in support of design, development, and engineering activities. Measurements from dedicated test events and targets of opportunity enable us to design components, characterize potential countermeasures, test algorithms, undertake lethality and kill assessment, and validate our critical models and simulations.

Investments providing ballistic missile targets, countermeasures, and other payloads support our test objectives. Presentation of the targets and payloads for flight test events involves designing, prototyping, developing, procuring, certifying, and qualifying for testing. In fiscal year 2003 we will establish a single prime contractor to further enhance system level management of targets and countermeasures activities.

In fiscal year 2004 we will continue to resource critical test facilities, launch capabilities, instrumentation, telemetry, communications, and safety systems underpinning our testing regime. With the enhanced realism of the test bed, the increasing

complexity of our tests, and the escalating tempo of test activity, our investments in this area will emphasize flexibility, standardization, and mobility.

International Programs

The President has underscored the importance of working with other countries to develop missile defenses and provide protection against ballistic missile threats. We are building defensive layers that could potentially involve a variety of locations around the globe and probably involve many other countries. Last summer interagency teams briefed key allies on the international participation framework. Today we are well along in our discussions with several governments regarding their possible participation in the missile defense program and improvements in our industrial relationships.

Advanced Concepts

We have several science and technology (S&T) initiatives to increase BMD system firepower and sensor capability and extend the engagement battle space of terminal elements. In fiscal year 2004, we will continue to focus on the miniature kill vehicle project, which could lead to a flight-test in fiscal year 2005. Fiscal year 2004 funding will support investigating early detection and tracking technology, Laser/LADAR technologies for improved tracking, weapon guidance, and imaging, and technologies for a space-based, high-power laser. While our S&T activities are not on a critical path for insertion into the BMD system, each one of them is being considered for their block enhancement value.

Program Operations

Our Program Operations expenses are primarily for government personnel performing management support activities, contractors that assist in performing these activities, and O&M-like costs associated with operations and maintenance at numerous facilities around the country, supplies and equipment, communications and printing, travel and training, and information technology management.

MANAGEMENT AND OVERSIGHT

The missile defense program uses an acquisition approach tailored to the unprecedented nature of the technology involved in missile defense. We will continue to work very hard to ensure that the program has adequate management and congressional oversight. There is an improved process in place within the Department that preserves management, technical, and financial oversight by cognizant authorities on the Senior Executive Council and the Missile Defense Support Group. Senior warfighters, including the Joint Requirements Oversight Council, have reviewed missile defense objectives and will continue to do so several times a year. Internally we have in place configuration management procedures, and we produce on a regular basis the necessary threat, system, and configuration control documentation to ensure that our activities continue to support our development and fielding objectives. As directed in the 2002 and 2003 Defense Authorization Acts, we have identified cost, schedule, testing, and performance goals and developmental baselines in the President's fiscal year 2004 budget justification materials and shown clear linkages between the Agency's budget and key performance measures.

CLOSING

Mr. Chairman, we are on track with our missile defense program. We know that the technology fundamental to the current generation of missile defenses works. We have demonstrated many times over the past 2 years that we can collide with a warhead and destroy it. We have the confidence to proceed with plans for an initial defense capability. A few years ago, I could not have said this to the American people. Today I can. We will build confidence in the system over time as we invest in the program.

We also recognize that we have much more work to do to improve the BMD system. The architecture we have in 2004 and 2005 will probably be very different a decade later, depending on how our RDT&E efforts proceed. Our objective continues to be one of improving missile defense capability over time. We have made considerable progress in missile defense over the past 3 years. With the President's direction, and with your approval of our budget request, we will take another important step on that long road before us.

Thank you, Mr. Chairman.

Chairman WARNER. Before we proceed to a 6-minute round of questions, the distinguished Senator from New York has joined us now. Each of us have had an opportunity, given the unusual events

of the day and particularly the last 24 hours, to address the committee and others.

Senator Clinton.

Senator CLINTON. I thank you, Mr. Chairman. I would just add my words to those of my colleagues, that certainly last evening was a solemn occasion for every American, when the President addressed our Nation about the possibility of military action, giving Saddam Hussein one last chance to avoid war. Obviously we all hope, although it is a hope against evidence, that Saddam Hussein will finally hear this ultimatum and understand the severity of those words and the consequences.

While I, along with many others, wish there were more international support for this effort to disarm Saddam Hussein, at this critical juncture it is important for all of us to come together in support of our troops and pray that, if war does occur, this mission is accomplished swiftly and decisively with minimum loss of life and civilian casualties.

On Friday, Mr. Chairman, I was at Fort Drum, where we held a memorial service for 11 young soldiers who died in a training accident on a Black Hawk mission. I met with the wives of those young men, two of whom were pregnant, their mothers, their fathers, their grandparents, their sisters, their brothers, their cousins. I looked into the eyes of each person and told them how sorry I was and how I hoped that they shared our pride in the extraordinary courage of these young men, as they were training to defend us.

Clearly, all of us hope that this mission will be accomplished with minimum loss of life. We know that our military, thanks in large measure to the people who serve on this committee, are the best trained, equipped, and motivated in the world. We support them fully and we are very grateful for their service in these difficult times. I know that all of us will be praying for them and sending our strongest, most heartfelt best wishes; not only to the men and women who are poised on the edge of combat, but to their families, who in a very real sense in today's world are also serving our country.

Chairman WARNER. I thank you, Senator. Throughout your service on this committee, you have emphasized your personal concern for the family structure that is such a vital part of the overall infrastructure to support our men and women in the Armed Forces. I thank you.

I will open with questions. Then I will pass the gavel to the subcommittee chairman, Senator Allard, to conclude the question period in the hearing.

Secretary Aldridge, let us go back to the very important issue raised by my colleague, Senator Levin, and fully explore the issues that he raises. It would be helpful. Let us cut through some of the legal situation here and just get down to it. What was the intent of the administration asking for this provision? What is it that you feel the provision, if adopted by Congress, enabled you to do that you can't do now?

Secretary ALDRIDGE. Yes, Mr. Chairman. I wish I had a record of how the language got added to this bill. We do not know exactly other than perhaps protecting some interests of the Department. I

think the bottom line, however, is that it was never our intent to try to get a waiver for operational testing. As a matter of fact, the reason we have the test bed and we are developing the test bed is to enable operational testing.

I think we can work with the committee and the staff to find language that clearly, unambiguously states where the Department is. That is, we do not request a waiver. I think we can find language that will ensure that Senator Levin's concerns are being addressed. I believe we can do that.

Chairman WARNER. That is helpful but I think it is a frank admission that, at this juncture, you are not certain as to how it originated. To the extent you can determine that, well and good. Because I judge from your remarks now that this committee and Congress can anticipate a revision forthcoming in the course of our deliberations before any bill is drawn up. Am I correct in that?

Secretary ALDRIDGE. Yes, sir.

Chairman WARNER. That will be very helpful.

Now, General Kadish, I listened very carefully to your excellent statement. You used the word "limited" in several different contexts. I want to clarify for the record the obvious, but some people following this hearing, I think, might not fully appreciate that the ultimate objective is for us to devise a system to protect us against a limited number of missiles, were they to be directed at the continental limits of the United States and/or our allies and so forth.

Am I not correct in that?

General KADISH. Yes, Senator. Eventually, evolutionary improvements to the system may go beyond that. Certainly in the 2004 time.

Chairman WARNER. Do not say beyond that. It enables the system, then, to interdict a greater number.

General KADISH. Greater number, correct.

Chairman WARNER. All right. That is the use of the word "limited" which I think you want to go back and look at your testimony. Then you referred to "limited" in the context that if we proceed as now anticipated, we will get a limited benefit from the system.

General KADISH. Yes, sir.

Chairman WARNER. In other words, limited in its capability just to knock down one missile, much less a dozen or so.

General KADISH. Right.

Chairman WARNER. Do you follow me on the use of the word "limited"?

General KADISH. I think so.

Chairman WARNER. If you go back and look over your statement, you might wish to clarify that.

General KADISH. I will look at it again.

Chairman WARNER. But let me go directly to a broader issue here. Some are concerned that the President's decision to field missile defense capabilities during 2004 and 2005 means that we are deploying a capability that has not been tested. In addition, there is some concern that making the missile defense test bed an operational asset will somehow reduce or truncate tests or will disrupt the testing you already have planned.

Let us clarify those. Give us your assessment, based on test results of the maturity of the ground-based mid-course system and

the Navy missile defense system, which the President opted to field.

General KADISH. Senator, our tests to date, I guess I would characterize as that we have proven the basic functionality of each of the elements and to some degree their ability to integrate to perform their mission. That certainly has given us a lot of confidence in proceeding.

Now what we have to do, specifically in the ground-based missile defense case, is to actually put them in the locations that they could be realistically tested. Let me just give you an example. Right now today, as complex as our testing is from Vandenberg to Kwajalein, we have a radar that is out of place in terms of its operationally realistic configuration. The X-Band radar is at Kwajalein itself. It should be farther forward. The early warning radar is in California, and it should also be farther forward in looking at the trajectory.

When we build a test bed, we hope to fix that and to provide us with more capability to operationally, realistically look at different azimuths of intercept, different trajectories, and provide a much more robust look at the data gathering that supports our models and simulations. That, in turn, would give us greater confidence that we could handle unusual situations.

In regard to the concern of whether or not we would reduce our testing because we have the test bed in an operational configuration, I think there is a risk that we may not be able to time it exactly right. Basically we are working very hard today and, in fact, have started a battery of meetings with the using community starting with Strategic Command and NORTHCOM, to look at different approaches to how we would actually keep operationally alert status on the system or part of the system while we are doing other types of tests. That is going to require us a little bit more time to define in detail the meaning of every test we want to do.

But what I see today is basically the capability of doing both tasks in concert with the using community to make sure we can accomplish both our objectives. I am confident we will be able to work that out.

Chairman WARNER. Thank you very much.

Secretary Crouch, the President made his decision last December to proceed with the limited fielding of ground-based mid-course capabilities and the Navy mid-course system. Can you elaborate on the background which prompted this very important decision? Was the decision promulgated by any specific threat development? Or was it more directed at the general trend toward widespread deployment and the need to do so for missile defense?

Secretary CROUCH. Senator, you know that we have taken, in the Department as a whole, a capabilities-based approach to dealing with emerging and extant threats. We see missile defense capabilities as being one of the essential tools in the tool kit that the Department will need in the future to defend the United States, to defend our allies, and to defend deployed forces abroad.

Clearly, we think from just looking at existing threats and the development of things, for example, in North Korea our concerns about long-range systems coming out of the Middle East and the like, we think that threat was an important part of this decision.

But I would also underscore the fact that we have been surprised in the past by things. We have been surprised by new systems, by new capabilities. So I would not want to say that it was keyed specifically to an individual threat, but more broadly to the need for a capability for the United States that we do not have.

Against that back drop is also the point that we do not have any capability today in this area. It is not as though we are building on an existing system, like aircraft carriers, where we have a particular system deployed, and we are now arguing about the next version or the next modification to that system.

We thought it was important to get some capability out there. We think that that will not only give us that limited, very modest capability, but also will improve our operational testing and give the warfighter some experience in using these systems. We also think it has an impact in the way it might be able to dissuade others from investing in long-range ballistic missile capabilities.

So, it was really for all those reasons that I think the President made the decision he did.

Chairman WARNER. Thank you very much.

Senator Levin.

Senator LEVIN. Thank you very much, Mr. Chairman.

Mr. Christie, the planned 2004 national missile defense deployment is going to use an old 1970s vintage long-range radar that was never designed for missile defense. This radar is called the Cobra Dane radar, as I understand it. First, in your recent report on missile defense, which was released in February, you said that "the absence of a long-range target that will be able to exercise the Cobra Dane radar will preclude a system-level flight test of the 2004 national missile defense system."

Is that correct?

Mr. CHRISTIE. Yes, the Cobra Dane radar will not be able to track a test target because of the way it is pointed, except in a simulated operational exercise. We will not be able to use it in testing.

Senator CLINTON. Mr. Chairman, could the witness speak up? We cannot hear.

Mr. CHRISTIE. Okay. I am sorry.

Senator CLINTON. Thank you.

Mr. CHRISTIE. We will not be able to use the Cobra Dane radar in testing because we would have to launch the target from west of the radar into its envelope.

Senator LEVIN. So, there is not a long-range target suitable to be used for that test; is that correct?

Mr. CHRISTIE. Yes. We would have to use an air launch target which we do not have at the present time for testing.

Senator LEVIN. Right. So there is no plan to test that radar against a long-range target?

Mr. CHRISTIE. That radar will be tested and exercised at some length with the command and control system that will be set up at Fort Greeley. But it will not be tested against an actual target.

Senator LEVIN. All right. So therefore, the 2004 system can't be tested as a complete system with a realistic long-range target. Is that correct?

Mr. CHRISTIE. We will test the entire system in simulated operational exercises.

Senator LEVIN. Do we have a long-range target, a realistic one, to test it against?

Mr. CHRISTIE. We will not be able to launch a target from Japan so it would fly into that radar's field of view.

Senator LEVIN. Right. That is all I am saying.

Mr. CHRISTIE. Okay.

Senator LEVIN. All right. So in that sense, we are not going to be able to test the 2004 system that is being fielded as a complete system with a realistic, actual long-range target. Is that correct? I am just trying to summarize.

Mr. CHRISTIE. No. We are not going to be able to test with a realistic launch from that direction.

Senator LEVIN. Okay. That is fine.

Mr. CHRISTIE. From that specific direction, no.

Senator LEVIN. We are not going to be able to do that. Would you like to be able to do that?

Mr. CHRISTIE. If we had an air launch target that we could launch to test that particular radar, we would be able to do that.

Senator LEVIN. Let me get to this language that apparently Secretary Aldridge does not know how it got into the legislative proposal. I am glad to hear that it did not come from you, Secretary Aldridge. Do you know how this language got here that effectively waives operational testing by designating the 2004 system as a development system? That is, what is the effect of designating, as a development system does, to effectively exempt it from operational testing, since it is a development system under this language.

Mr. Christie, do you know how that language got into this legislative proposal that came from the administration?

Mr. CHRISTIE. No, I do not. But I would also add that just because it is a development system does not mean that some operational testing cannot take place.

Senator LEVIN. Of course. That is our point. We did that with other systems.

Mr. CHRISTIE. Operational testing will take place.

Senator LEVIN. It will take place and should take place.

Mr. CHRISTIE. It will.

Senator LEVIN. So then, you do not know what the point, then, is of designating——

Mr. CHRISTIE. No, I cannot speak to that.

Senator LEVIN. You were not consulted?

Mr. CHRISTIE. No, I was not.

Senator LEVIN. Were you consulted, Secretary Aldridge, before this language was put into this proposal of the administration?

Secretary ALDRIDGE. No, sir, I was not. But I am not consulted on thousands of other pages of language. I think, in reading the language, if the intent was never to ask for the waiver, you read the language in a very innocent way; because that was not our intent to interpret that language in a way that would request a waiver.

Senator LEVIN. But you did not have an intent. As I understand.

Secretary ALDRIDGE. Oh, it is not an intent.

Senator LEVIN. You do not know where this language came from?

Secretary ALDRIDGE. I was not participating in adding the language to the bill.

Senator LEVIN. Do you know what its intent is? Have you asked the people who put the language in here what its intent is?

Secretary ALDRIDGE. No, sir, I have not.

Senator LEVIN. Thank you.

Secretary Crouch, were you involved in getting this language here?

Secretary CROUCH. No, sir.

Senator LEVIN. Do you know what its intent is?

Secretary CROUCH. No, sir.

Senator LEVIN. General Kadish were you involved in getting this language in here?

General KADISH. Senator, I was involved in trying to get the intent of the language into the budget documentation. The basic intent of that paragraph in the budget documentation is a very detailed description, was to get the authority that was granted this year and previous years to use the RDT&E money exclusively for all our efforts, as opposed to dividing up the restrictions between military construction-type money and procurement money. That was the intent at the budget-documentation level.

Senator LEVIN. That is the intent of this language?

General KADISH. As I understand it, yes.

Senator LEVIN. Were you consulted or did you draft this language?

General KADISH. I did not draft the language but I saw the language, as we were putting our budget language together.

Senator LEVIN. All right. Do any of you have any objection to this language being revised so that it makes it clear that this system is subject to operational testing? Do you have any problem with that?

General KADISH. There was never an intent to exempt us in that language. It could be read that way; obviously, you have. So I have no problem changing it. But the intent was a funding issue, not a testing issue.

Senator LEVIN. All right. I am glad to hear that.

Will you all answer my question this way: Do you have any problem with that language being changed?

Secretary ALDRIDGE. We have no problem with changing that language.

Senator LEVIN. So that it is not limited to development testing, so that operational testing will take place on this 2004 system? Do you have any problem with that, Secretary Aldridge?

Secretary ALDRIDGE. No, sir, I do not. I just want to hesitate and say one thing: But so long as we get the other reason for the language, to include the RDT&E funding to permit the deployment.

Senator LEVIN. Do you have any problem, Mr. Christie?

Mr. CHRISTIE. No, sir.

Senator LEVIN. Do you have any problem, Secretary Crouch?

Secretary CROUCH. Absolutely not.

Senator LEVIN. Thank you.

My time is up. Thank you.

Senator ALLARD. It is my time to ask some questions. General Kadish, you were trying to respond to some questioning to Mr. Christie or Senator Levin. Do you have a comment that you want to elaborate on, on that question?

General KADISH. I would just point out, in regard to the Cobra Dane radar, that this is another example of how difficult it is to put a system together that depends on geography for its function. The Cobra Dane radar is in a very good position to do a lot of what we need to do for an early warning radar.

In regard to testing it operationally, there are two methods that we will probably offer. They are not worked out in detail yet. One is we have a long-range target air launched under development that we will put into the program when we can get it ready. It will not be ready in the 2004 time frame or possibly in the early 2005 timeframe. But the schedules are such that as soon as we can, we will be testing it operationally using that type of a target, if it works out.

Senator ALLARD. So, your goal is to get a complete analysis of the system?

General KADISH. Right. Now, there are other data elements tracking different types of items that look like ballistic missiles that would also help us in our evaluation of that system.

Senator ALLARD. Thank you.

General KADISH. I would point out that the Cobra Dane radar is certainly 1970s-type of technology. But what we intend to do is upgrade it with the very latest computer processing capabilities, as well as software, to make sure it can do its intended function.

Senator ALLARD. Thank you.

Mr. Christie, in your most recent report to Congress, you stated that the BMDS elements have made progress this year in one or more of four areas: flight test, system ground test, component ground test, and system definition. Again to quote, "MDA's program represents a sound engineering approach for maturing both the system design and test infrastructure."

Would you tell us what factors provide you with confidence that progress is being made and that the MDA's approach is a sound one?

Mr. CHRISTIE. The R&D program that is laid out for the various elements is done in a very systematic way, with robust testing for each of the elements. We have, I think, as General Kadish earlier discussed, demonstrated the hit-to-kill capability, which was a big question mark. We are now ready to move on to "missionizing" that capability. We are now ready to move on to a ground-based interceptor that will be using the new booster motors, because the old booster motors have been a problem.

For the test bed that is being planned, it will eventually remove the dependence on the radar in Hawaii that provides mid-course tracking when the sea-based X-band radar is operational. So when I look at the total program, I think it is moving in the right direction. The right tests are planned, both in terms of individual elements, as well as the total system.

Does that answer your question, Senator?

Senator ALLARD. I think that is what we are wanting. Thank you. But let me follow up with it just a little bit. Your report also notes that the recent successful Aegis test flights took place from functional, fully-manned, operational ships. Consequently, the system could be employed in an emergency with limited expectation of success.

Now, the Aegis tests were clearly not operational tests. But an operational asset conducted them and led to a decision to field that initial capability. Would you assess, in a general way, the utility of conducting tests with system under development with operational assets?

Mr. CHRISTIE. In the Aegis case, we actually fired off operational ships using operational crews. We had three intercepts that proved the capability of the missile system that is in development. That testing supports buying a limited number of missiles, up to 20, that will give us some limited capability against medium-range threats.

I support the concept of doing operational testing or getting an operational evaluation out of a development program, and particularly when we are using operational troops or operators on an actual operational ship, which is what the case was here.

Senator ALLARD. A follow-up question I have in response to your answer, since it was positive in nature: would your confidence in the operational utility of the ground-based, mid-course system be enhanced if one or more of these flight tests took place using an operational asset and the soldiers who man it on a regular basis?

Mr. CHRISTIE. Obviously it would be. But I do not think, at this point in time in the development program, that we are going to be able to turn over the ground-based system to operators. We will be training operators once we get the test bed fielded, but I am not sure that the testing will use military operators. I would have to refer to General Kadish. I do not remember.

Senator ALLARD. Do you want to elaborate on that?

Mr. CHRISTIE. It would give me more confidence if we were using actual soldiers in an operational system. But I do not think we are planning to use soldier operators for some time.

Senator ALLARD. General Kadish.

General KADISH. Senator, if I could answer that question a little bit more in detail. The current testing, certainly on the ground-based side, is not done with soldiers at the consoles, although we simulate the types of decisions they would make. Our intent, although the plans are not finalized right now and they are just beginning to become part of our discussions with the using community, is to—as we approach the 2004 fielding, is to actually put the user/soldiers at the consoles for flight test, if at all possible, to replicate what we have done with Aegis.

Now, we are not there yet. These are plans that need to be put together and make sure we have all the safety and the training up and operating. But that would be clearly our intent, because as Mr. Christie pointed out, the best test we could get is when real soldiers, sailors, and airmen operate the equipment. That is the best test that we could use.

However, they would not be given the design of the GMD system, the quantity of people involved is not very large at all, because of the nature of that system.

Senator ALLARD. Thank you.

Senator Reed, my time has expired. You are next.

Senator REED. Thank you, Mr. Chairman.

Mr. Christie, I think one of the critical points in your testimony, which was very good testimony, is this phrase with respect to the mid-course, ground-based program. This conclusion, which I believe

MDA agrees with, is based on the fact that many essential components of GMD have not yet been built. We cannot test the system without these critical components. We cannot test it realistically without the test bed.

Will all of these critical systems be built prior to 2004?

Mr. CHRISTIE. They will be built as part of the Block 2004 test bed. I do not think they will all be in place by September 2004. The sea-based X-band radar is a necessary component. We will have new boosters. We will be testing the new boosters with a ground-based interceptor.

Those are two components that are not there now.

Senator REED. So based on your testimony and your response, this is a question of not just deploying a system without testing, this is deploying a system that has not yet been fully built; is that accurate?

Mr. CHRISTIE. No, we have not built the sea-based X-band radar yet that is needed for mid-course guidance.

Senator REED. But we are deploying a system that has not yet been built, the whole system?

Mr. CHRISTIE. We have to build it to put it in the field to support testing.

Senator REED. My point is, I understand we have to build it. But maybe I am missing something, but usually we deploy systems that are at least built, not fully tested, but at least built. This seems to be a departure from the—my assumption that we will build a system and then we will test it. Again, I think your comments suggest that we are doing something that is somewhat unusual in deploying a system that has not yet been fully been built.

Mr. CHRISTIE. We will not deploy it until we have built it.

Senator REED. We are deploying it in 2004; is that correct? Am I wrong?

Mr. CHRISTIE. Yes.

Senator REED. You have just indicated that we will not have a significant part of the system even built by 2004?

Mr. CHRISTIE. We may not have it deployed in 2004. It may not be built and in place in 2004.

It will be built as part of the 2004 test bed.

Senator REED. Secretary Aldridge, I assume that the President of the United States has declared that this system will be deployed in September 2004; is that correct?

Secretary ALDRIDGE. He set a goal to have it deployed and we have used the term 2004 to 2005. We are constructing the components that will make that happen, some of which already exist, some of which do not.

Senator REED. So there is a possibility that in September 2004, this system will not be deployed?

Secretary ALDRIDGE. I do not—the terminology "deployed" bothers me. That is the reason I am hesitating.

Senator REED. It bothers me, too. That is why I am trying to figure out what you intend to do.

Secretary ALDRIDGE. We are talking about the construction of a test bed, the construction of a test bed, which will be augmented with some limited operational capability. The word "deployed" has a connotation that goes far beyond the construction of a test bed.

Senator REED. Mr. Secretary, I could not agree with you more. But that is the choice, the term, the President of the United States used. He did not get up and make a speech about a test bed and limited capabilities, which I think is very accurate, which suggests to me that, from the test planning standpoint, what you are saying makes a great deal of sense. But there is a political connotation to "deployment," which I think has gotten in, perhaps.

Let me turn to General Kadish. First, let me say that you have a very difficult job, technically demanding and also rhetorically demanding at times.

General KADISH. I will not disagree with that, Senator.

Senator REED. I know. We agree. So far, all of the tests that you have conducted, and some have been successes and some recognizably have not succeeded, require that you input into your kill vehicle your booster target data; is that correct?

General KADISH. That is correct.

Senator REED. At what point will you not be putting target data into your test shots? At what time frame?

General KADISH. Let me try to be a little bit more precise, because the implication of the question is that there is target data that should not be there.

Senator REED. No, no, no. At what point will you fire a missile without target data?

General KADISH. We do not ever expect to fire a missile without target data. The way the missile defense systems operate, by their very nature, is that you have to have a sensor in the right place at the right time to detect the missile launch. Once that missile launch is detected, the whole system starts tracking it, deciding when to shoot at it, how many times to shoot at it, whether we kill it or not, whether we want to shoot at it again. In a layered missile defense system, we will always be injecting target data into the system.

Senator REED. At this point, you inject the days before the event the pre-loaded data.

General KADISH. These tests are very scripted today.

Senator REED. When will you stop doing very scripted tests? What year?

General KADISH. We will get less and less scripted the more we get the test bed into the operational mode.

Senator REED. By September 2004, will you be firing missiles that have limited or no data pre-loaded?

General KADISH. No. But the operational system will also have pre-loaded data.

Senator REED. That is true. But by 2004, essentially you will be firing a missile, the kill vehicle and its booster, which has significantly been loaded days before with target data?

General KADISH. But that is the way the operational system will work. What we will not do is predict the time of launch of a threatening missile. The system, if we do it right, and this is part of the testing that we have to do, is to make sure that it is always up and operating; so when those sensors detect a launch, we can shoot at it.

It will have intelligence data loaded up. It will have the time of day loaded up, because that is the way the system operates. So it

will have that type of data. But the operational system will use data of that nature.

Senator REED. My time has expired. Thank you, General.

Senator ALLARD. Before I call on Senator Sessions, I have just a comment. Obviously, the Aegis or the X-band radar has been already tested and deployed. With this system, you have confidence in it?

General KADISH. The sea-based X-band radar?

Senator ALLARD. Have we built, tested, and operated X-band radars in the past?

General KADISH. I think so, Senator, yes. Oh, yes.

Senator ALLARD. All right. It seems like we are getting into sort of a terminology issue here about "operational" and "fielded." I wonder if perhaps maybe a "fielded" terminology would not be a little more accurate and actually what is going on, because I think "operational" tends to signify that certain events are going to occur. When we have spiral development, it seems to me like we have a little different terminology that has to be developed, as far as missile defense systems are concerned.

Senator Sessions.

Senator SESSIONS. Thank you, Mr. Chairman.

I want to express my appreciation to the entire Department of Defense for the superb way you have responded to the threat of Iraq. You are placed in a position to be successful; Lord willing, we will be successful, if that war does occur.

I think what you have done in transforming the military, in applying the highest and best science, the best technology, and then training our troops to utilize that technology, breaking down old barriers so that Air Force and sergeants and airplanes can communicate in a way that places incredible stress on the enemy in the event of a conflict, is just an extraordinary achievement. I am just exceedingly proud of that.

It allows our President, and the United States of America, and the people of this country to stand strong for our values, to be courageous, and know that if we do not knuckle under to evil forces around the world, we can in fact make this a better world and improve our own personal security. We can do it with, hopefully, a minimal loss of life, even to our enemies. So it is an extraordinary time. I really want to salute you for that.

There has been some debate and concern since I have been in the Senate about national missile defense. There are those who said the window that the commission found, setting forth the date that we needed to be able to deploy, was not accurate, that we did not need a missile defense program, that we ought not to develop one, and we ought to slow down the development programs that we had.

We have had a considerable number of debates since 1997, when I came here, on that issue. Each time that we have debated it, those who have felt that we need to move forward with a missile defense have prevailed in the debate. We still have a good, tough questioning, which I think can only be constructive to our program. Some, I know, have not supported the program to begin with. But there is nothing wrong in this democracy. We are having to be challenged and be able to face those challenges.

But with the emergence of evidence that Saddam Hussein has missiles that could extend their range, that Iran is desiring to enhance its missile capability, and with the testimony we have had from CIA Director Tenet that North Korea may even able to reach the United States with a missile today, I believe that this has validated the commitment this country has made toward that.

General Kadish, I know you have handled that for so many years. You have testified many times. The program has had some progress. I am sure there is a lot of difficulties and challenges that you have faced. But we have continued to move along. If I am not asking you to repeat it too much, would you tell us where you think we are in terms of your personal view of how much progress we have made and how close we are to our goal of making this country safe against a missile attack?

General KADISH. Senator, as you will find in my formal testimony, I believe we are ready to take the next steps. Two years ago or more, I could not have told you with confidence that the hit-to-kill technology would be workable enough to put into an operational system. We believed it to be so, but we had a lot of testing to prove it. We have accomplished that testing. We are confident now that the basic technologies and the approach we are using is a sound one.

We have many other efforts to improve on that in our RDT&E program. Based on the fact that our current analysis and testing provides us confidence in the hit-to-kill technology, I think we are ready to take the next step, in actually making it operational, use it, get comfortable with it, improve it as best we can, and then make the decisions in the future of what best to add to that system to make it even better than it is at any given time.

So right now, I believe we have made a lot of progress. We have a lot of work to do. We have a lot of challenges to face, some of which are more management than technical. But I think we are up to it. We are going to work hard to make it work.

Senator SESSIONS. I do not have any doubt that Kim Jong Il would like to have the American leadership and the American people think that he has the capability of hitting this country with a missile. Once he has that capability, he may think that he can blackmail, or push the United States around. He thinks he can deter us from doing things that are in our national interest and the interest of the world.

So, I think having that capability as soon as we can is important. I believe events have validated the steady program of progress toward this goal that we have invested in.

General Kadish and Secretary Aldridge, this year MDA will transfer to the Army the PAC–3 and MEADS program. Procurement and transition criteria seem to be in place. Please tell me what R&D support the Missile Defense Agency will provide to these programs in the out-years. Also, is there any sort of strategy in place or being discussed which combines the various programs into a seamless strategy? What is that strategy?

Secretary ALDRIDGE. Yes, sir. Let me start off. We did take a look at the PAC–3 program and MEADS. I had three criteria that I established for myself to determine when such a program should transition. That has been part of the missile defense plan alto-

gether. When we make a decision to take a system that we believe is now ready for operational deployment, we would remove it out of the Missile Defense Agency, focus the Missile Defense Agency exclusively on the research and development, and then give the operational system to the appropriate Service. That is what we did with PAC–3.

We had technical maturity, we had—with the availability of production facilities. We had the full support of the Secretary of the Army to do so. Those were the basic criteria that I used to make that decision to transfer.

The Army will have the exclusive responsibility for the development and the operational deployment of PAC–3. However, the integration of the PAC–3 into the ballistic missile defense activities will continue to reside within the Missile Defense Agency, because those activities have to be integrated. But essentially the full deployment and the future development, which would be primarily air defense capabilities, will exist within the Army to do that.

Senator SESSIONS. General Kadish, do you want to further comment?

General KADISH. I fully support that approach. Its linkage with missile defense, as well as air defense, is properly placed in the Army at this point in its cycle; and we will continue involvement.

Senator SESSIONS. It is important that we make sure that funding is maintained adequately. The Army is picking up now something they had not had before. We need to make sure that the funding follows it, else they will not be able to deploy.

Comment on that, Secretary Aldridge.

Secretary ALDRIDGE. Absolutely. That was the third criteria, that the Secretary of the Army fully supports this and will properly fund it. He assured me that was going to happen.

Senator SESSIONS. Secretary Aldridge, the President has once again presented a robust missile defense budget. In the aftermath of this treaty, are you satisfied that we have sufficient funding to look at all phases of the architecture, boost, mid-course, and terminal? Are you satisfied generally with the budget?

Secretary ALDRIDGE. Yes, sir. I have gone through the program in detail. We have activities dealing with boost phase, mid-course, and terminal phase. We have capabilities dealing with short-range, medium-range, and long-range rockets. We have a robust technology program in place, some of which may work and some of which may not. So we have a program that, I believe, will get us where we want to go in this evolutionary spiral development approach. We will make decisions as we go. As some things turn out to prove themselves to be effective and some things prove themselves not to be effective, we will stop some things, which we have already done in one case.

The Navy Area Program was getting in deep financial trouble and we decided to terminate that program and use our funds for other things. Yes, I am very confident that we have a well laid-out program that will get us where we need to go.

Senator SESSIONS. Thank you. I do believe that is the correct approach. I believe you should be free to make changes. We should not straight-jacket you now with a program that we are not absolutely certain is going to be the way it will end up. I do salute the

President for understanding early on that the ABM treaty was not a basis of a relationship between us and Russia, that it was complicating our ability to rationally develop a missile defense system. You are now free of that. We are able to develop a system that makes sense.

Senator ALLARD. Thank you, Senator Sessions. The Senator's time has expired.

Senator Pryor.

Senator PRYOR. Thank you, Mr. Chairman.

I have heard a lot of discussion today about the PAC–3 missile. I wonder if you could just tell me in general terms—and this is really for anybody who is best qualified to answer—what the PAC–3's capabilities are?

Secretary ALDRIDGE. I think General Kadish can probably do it better than any of us.

General KADISH. The Patriot–3, I can describe the capabilities with a few characteristics. It is what we call a point-defense system, where it protects a certain radius area rather than a large region. It has a characteristic of being a terminal system. So it intercepts after the warhead reenters the atmosphere. It protects against short-range missiles and medium-range missiles. So it has those kinds of characteristics in terms of capability.

So when you look at it, it protects a point defense in the terminal phase against short- and medium-range missiles.

Senator PRYOR. How mobile is it?

General KADISH. It is what I would call transportable in that it could be placed in a place where it needs to defend and then can be moved. But it does not—if the term "mobile" includes, "Can it shoot while it is moving?" The answer is no. It is transportable. In fact, the latest deployments prove that out. We are able to move it, transport it, set it up. Then if we need to move it again, move it again.

Senator PRYOR. I understand if you cannot answer this next question, but do we have PAC–3s in the Iraqi theater right now? Again, we are not in a closed session. So if you cannot answer, I understand.

General KADISH. We have every missile defense capability that will contribute to this problem in play.

Senator PRYOR. How many PAC–3s do we currently have in our arsenal, if you can answer that?

General KADISH. I think it changes from day to day. Because every time we get a delivery off the production line, we send it into its intended use. I think the number is somewhere in the mid–50s.

Senator PRYOR. Okay. You have more requested in the upcoming fiscal years that is included in the budget?

General KADISH. Yes. If I recall exactly, and I would have checked these numbers, is that this program requests, and we would have up to 332 by the end of 2005.

Senator PRYOR. That was a question, too, I had. Are we trying to get to a level and stay there, that we should always have a set amount in our arsenal?

General KADISH. The inventory, what we call the inventory objective, for Patriot–3 right now is not necessarily a relevant factor, be-

cause we have so few of them. We are trying to build as many as we can, as quick as we can.

Senator PRYOR. Right.

General KADISH. The ultimate number will be subject to the best judgment of the Army, and the Department, and the money available.

Secretary ALDRIDGE. The fiscal year 2003 omnibus bill just provided $104 million for us to accelerate the production rate to get up to a level rate, which I would prefer not to answer in an open hearing.

Senator PRYOR. I understand.

I do not want to put words in your mouth, but it sounds as if you all are pretty satisfied with the PAC–3. Is that fair?

General KADISH. From my perspective, I am never satisfied with where we are with these systems. I would like to do more with every dollar we can afford to spend.

Senator PRYOR. Right.

General KADISH. But it has a very good capability for what it is used for.

Senator PRYOR. I understand there are more upgrades and additional capabilities that are being worked on right now?

General KADISH. That is correct. In fact, if you look back in history, Patriot–2, which we have also in the inventory, was an upgrade to Patriot basic, and now this is Patriot–3.

Senator PRYOR. Right.

Secretary ALDRIDGE. The follow-on program is a program called MEADS, Medium Extended Air Defense System, which is an international program with the U.S., Italy, and Germany. That is a program that is being developed now that would make it far more mobile in the sense of being air transportable on a C–141, as opposed to C–17s, and would give it a much improved capability for cruise missile, as well as tactical missile defense.

Senator PRYOR. Okay. If possible, and I know you do not have these facts and figures before you, but I would like you to get me what you anticipate may be required in funding the upgrades and extending the capability of the PAC–3 system, if that is possible.

Secretary ALDRIDGE. Yes, sir.

[The information referred to follows:]

I have directed the Army to combine management, development, and fielding of the Patriot and MEADS programs. The Army plans to spend $1.051 billion in fiscal year 2005, $986 million in fiscal year 2006, $994 million in fiscal year 2007, $1.197 billion in fiscal year 2008, and $1.209 billion in fiscal year 2009 on the Patriot/MEADS program. Of these, $360.4 million are RDT&E in fiscal year 2005, $306.7 in fiscal year 2006, $315.7 in fiscal year 2007, $345 million in fiscal year 2008, and $312.3 million in fiscal year 2009. The total budget will fund the continued development of Patriot/MEADS, the procurement of PAC–3 missiles and related ground support equipment, the upgrade of additional Patriot units to PAC–3 capability and the continued support of Patriot units deployed worldwide. Specifically, the Army will do an incremental insertion of MEADS capability into the existing Patriot forces starting in fiscal year 2009–2010, develop and field the MEADS objective missile (PAC–3 Missile Segment Enhanced) by fiscal year 2011, and develop and field Operation Iraqi Freedom fixes to the PAC–3 system starting in fiscal year 2004.

Senator PRYOR. The last question I have, and I just want to make sure I am very clear on this, this is really a follow-up to Senator Levin's earlier questions, is, as I understand it, the PAC–3

system did go through operational testing before being deployed. Am I correct in that?

Mr. CHRISTIE. That is correct.

Senator PRYOR. That is all I have, Mr. Chairman. Thank you.

Senator ALLARD. Next we have Senator Akaka.

Senator AKAKA. Thank you. Thank you very much, Mr. Chairman.

General Kadish, I understand you plan to use radars of Aegis ships floating off the coast of North Korea to augment the 2004 national missile defense deployment. I also understand those ships are required to defend Hawaii from a North Korean missile attack. A senior Missile Defense Agency official was recently quoted as saying, and I quote, "These ships will carry two computer programs, both of which will use Aegis radar data. The programs will not run concurrently. Operators will have to choose to operate the standard air defense program or the ballistic missile defense program. While the ballistic missile defense program is installed, it will not also, at the same time, have a program that can do the other full air defense missions."

Does this mean that a crew of a ship off the coast of North Korea will have the choice between defending themselves for the type of anti-ship cruise missile launched by the North Koreans last month or defending Hawaii from a missile attack? If so, is this not a terrible choice they have to make?

General KADISH. Let me take that. The answer is no. Now let me explain why I said no, that they would not have to make a choice. It gets a little bit complicated. We still have some things to work out with what the United States Navy will actually have, as a concept of ops, for those ships and what they are going to do. Let me start by saying that the Aegis ships in this configuration have two functions.

One is to act as a surveillance platform for protecting Hawaii, as well as giving cues for the whole United States. The second function they would have would be to actually defend against shorter range missiles. To the best of my knowledge, the surveillance function can occur while the ship is actually engaged in the full operation of its defensive capability.

When we move to the missile defense against shorter range missiles, because those ships may have dual tasks defending against shorter range missiles, as well as surveillance for Hawaii and other purposes, they would have the choice between the full fleet defense missile air defense capability and operating the only missile defense, standard missile three capability.

That is the choice they would have to make. They have full self-defense capability on the ship for their own purposes. But they would not have the fleet-air-and-missile defense that is inherent in the Aegis platform. We are working through some of the operational concepts that make sure that our sailors are protected to the maximum extent possible during this mission. That is underway by the Navy senior leadership right now.

So the choices are very compatible and commensurate with the risks that we are running, is the best way I could put it. If it is there to help us protect Hawaii and give cues to other radar systems, then that is what it will do.

Senator AKAKA. Thank you for your response.

The national missile defense architecture envisioned by President Clinton included a large permanent X-band radar, located on the Island Shemya at the end of the Aleutian chain. As I understand it, this radar was required to enable the discrimination of the target warhead from a variety of other potential objects and was located to be able to defend all 50 States from a missile attack from North Korea.

General Kadish, you have previously testified that this radar was, and I quote, "the long pole in the tent for a national missile defense." The current plans for the 2004 missile defense deployment do not include any permanent X-band radar for operational use. Although a floating sea-based X-band radar is eventually planned for testing purposes, it will not always be in a position to defend against a real threat missile.

Furthermore, a recent report from the Missile Defense Agency stresses that the sea-based radar is not a substitute for the Shemya X-band radar. Rather, it is a test asset. The sea-based radar may be operable in port, where it would probably spend much of its time, because of interference issues with aircraft, cars, and other devices.

General Kadish, why do you not plan to build a permanent operational X-band radar to support the deployment of a national missile defense against a North Korean threat?

General KADISH. I would not say we do not plan to build those types of sensors. I think we have more evaluation to do. As we evolve the program, I would expect those decisions to be up for consideration.

If I might, let me take you back to the X-band radar at Shemya and give you a chronology of why the decisions have been made the way they have been made in regard to the X-band.

When the national missile defense program that required the X-band at Shemya was put together, that radar was put there for basically a couple of reasons. One is that we had no sensor that we could really, at the time, do everything that we wanted to do, and it was not in the Shemya arrangement. Cobra Dane was evaluated. But we would like to have had more capability than that, under the requirements-based approach that we were under at the time, because it had a very high-performance standard.

So we decided that we needed a radar there. An X-band was a good one. We wanted to put it at Shemya because it met a lot of the criteria for that system. Once we looked at not having a treaty in effect and looked at the basic capability of the system we had, we could delay that radar and look at other opportunities. That is where we came up with this sea-based platform, to serve two purposes.

One is to move this very large radar around the Pacific so it could have different viewing angles and not be tied to one ground-based location. The second thing is that we could move it into an operational capability to add to our overall defensive posture when it became available and was not needed for testing. That is on track to be done.

I guess the final reason, and the reason why it was a long pole in the tent at the time we were talking about the Shemya radar,

was that it takes a long time to build anything in Shemya in Alaska. It is at the end of the Aleutian chain, and construction seasons are very short, and the weather to get the material there is generally very bad.

So that is why we had to start so early. It became the focal point of that debate. Now we are freer to look at other locations. We will do that.

Senator AKAKA. Thank you very much, General, for your response.

Mr. Chairman, thank you.

Senator ALLARD. Thank you.

Senator Bayh.

Senator BAYH. Thank you, Mr. Chairman.

Thank you, gentleman, for your testimony today.

Secretary Crouch, I would like to start with you, if I might. Then, Secretary Aldridge, I would like to turn to you.

I would like to focus first on the North Korea threat, specifically how imminent and how serious it is. You have testified, I believe, Secretary Crouch, that the North Koreans have a missile capable of hitting the United States but it has not been tested yet; is that correct?

Secretary CROUCH. That is correct.

Senator BAYH. So they have deployed a system without testing. I think it is interesting we are proposing to follow the North Korean model, perhaps the only area in which we would mimic the North Koreans. Can a warhead be fitted to that missile? Do we know that they have the capability of doing that and still hitting the continental United States? We know they have a missile that we believe is capable of hitting the continental United States, although not tested.

Secretary CROUCH. I would say that we have seen two things. One, we have seen an earlier test, a flight test, of a missile that had three stages, that we think was attempting to put a payload in orbit, which would have demonstrated some inherent intercontinental capability. So we did see a flight test of that.

The specific missile I was referring to that we have not yet seen a flight test of, but which I believe we assess they could flight test at any time, is something we call the Taepo Dong II.

Senator BAYH. Right.

Secretary CROUCH. We believe that that missile is capable of carrying a reentry vehicle-sized payload to intercontinental range.

Senator BAYH. I am going to digress for one second. You mentioned Iran testing missiles. The missiles that they currently are developing, they are not capable of hitting the continental United States; is that correct?

Secretary CROUCH. We see a flight test program going on there. They have moved from short-range to now looking at medium-range type systems.

Senator BAYH. Can those systems hit the United States?

Secretary CROUCH. No. Those particular systems could not hit the United States. They would be capable of threatening a number of our allies and potentially deployed U.S. forces overseas.

Senator BAYH. Correct.

Secretary CROUCH. But our assessment is that by mid-decade or around mid-decade they could flight-test a capability, based upon the advancements of their program, that could strike the United States.

Senator BAYH. They could.

Mr. Aldridge, I would like to turn to you.

The point I wanted to make, Secretary Crouch, at least for the next few years, it seems to be largely a North Korea-related problem. Is that a fair analysis?

Secretary ALDRIDGE. That is to you.

Secretary CROUCH. Oh, I am sorry. I thought——

Senator BAYH. Largely a North Korea-related problem.

Secretary CROUCH. I thought he was directing Mr. Aldridge.

Secretary ALDRIDGE. No.

Secretary CROUCH. I would say——

Senator BAYH. Let me withdraw the question and move on. I think you see where I was heading.

Let me ask you, Secretary Aldridge, about the effectiveness of the system that is to be deployed in 2004 and 2005 in protecting against this developing North Korean threat. The 10 land-based missiles proposed for the end of fiscal year 2004, how effective would they be against the North Korean missile, if it were in fact launched against our country?

Secretary ALDRIDGE. We think it would be effective. We probably should not go into a lot of details.

Senator BAYH. How do you define effective? 90 percent success rate? 75? 50?

Secretary ALDRIDGE. Yes, sir. The way you could achieve these rates is you do not have to fire just one interceptor per target. You could fire two, as we do in PAC–3.

Senator BAYH. Of course.

Secretary ALDRIDGE. The effectiveness is in the 90-percent range. Of course, we want the effectiveness to be high enough that we never have to use these things. I mean, that is the ultimate effectiveness, that they never be used.

Senator BAYH. There are 10 going on line in 2004, 10 in 2005?

Secretary ALDRIDGE. Right.

Senator BAYH. The radar is not going to be available. When will that go into place, 2006?

Secretary ALDRIDGE. Let me see. General Kadish probably has the specific dates for all of those.

General KADISH. We will have radars on line to handle the early warning and usefulness of the system in 2004, when we put the missiles on alert, if everything works out all right. We will add the sea-based X-band, if it proves out, the following year. It is currently scheduled by September 2005.

Senator BAYH. So, Secretary Aldridge, your testimony is that with the 10 interceptors going in at the end of fiscal year 2004 and the radar that will be on line at that time, we would have a 90 percent effectiveness in shooting down the Taepo Dong II?

Secretary ALDRIDGE. A lot depends on the continuation of the test and the effectiveness, its precise effectiveness, numbers. But I would put, as of today, the projected effectiveness in the 90-percent range.

Senator BAYH. The reason I ask this is, there is a great deal of tension between our country and North Korea today. The effectiveness of this system is going to affect our diplomacy, other possible military actions, and so forth. If you are advising Congress or the President of the United States about possible North Korean reactions to our different actions, it is going to have a pretty profound impact.

You perhaps take one course of action, if you think there is a minimal chance of them hitting one of our cities with a missile, and you take a different course of action if you think it is somewhat more significant.

Secretary ALDRIDGE. Exactly. Of course, that is the rationale that went into the decision by the President to proceed. I think he clearly has many more options available, if he has a limited operational defense, is the way he described it. The activities that exist, the thought processes that exist, in North Korea or anywhere else, goes through a different——

Senator BAYH. Just so I understand, and this will end my questioning here, I would be interested in Senator Levin's reaction to this, if he has a moment to think about it. If you are advising the President of the United States that there is the possibility of the North Koreans hitting Los Angeles or San Francisco with a nuclear warhead, you are advising him that we would have a 90-percent chance of taking that down before it could get there as early as the end of the fiscal year of 2004. I mean, if millions of lives depend on it, that is your answer?

Secretary ALDRIDGE. Yes, sir.

Senator ALLARD. Senator Levin.

Senator LEVIN. Could I intervene here?

Senator ALLARD. I assume Senator Bayh is yielding his time.

Senator BAYH. I would gladly yield my time. My time has expired. But my reaction to this is I am pleased to hear, I will say I am pleased but more than a little surprised to hear your answer. I would be interested in the Senator's thoughts on that.

Senator ALLARD. We are getting close to wrapping up. I think you only have 3 minutes anyhow. But let us go ahead and we will proceed here.

Senator LEVIN. Number one, I am surprised that you even answered this in an unclassified setting. But number two, I am surprised at your answer, because I know the classified number. I will leave it at that.

Secretary ALDRIDGE. Well, I am projecting——

Senator LEVIN. I just think you had better go back and check the classified numbers to the probability of success of this 2004 system. I think you will want to correct the record after you read the classified numbers. But I think I had better leave it at that, because it is a classified number. But I was surprised, number one, that you did answer it.

Secretary ALDRIDGE. I am surprised there is a classified number existing, because we do not know yet until we get into the testing process.

Senator LEVIN. There is a range.

Secretary ALDRIDGE. The range probably depends on whether it is one missile or two missiles or a lot of other assumptions.

Senator LEVIN. I am just going to leave it at that. I think I have to leave it at that. I have no choice.

Senator ALLARD. Okay. We will move on ahead then.

Thank you, Senator Bayh.

I just have been conferring here with my colleague, Senator Levin. He says that he has about 3 minutes that he wants to use on follow-up questions. I have one question I would like to follow up on. Unless Senator Bayh has any other questions or anything, we will probably draw the hearing to a close at that particular point.

My question is this: Secretary Aldridge, capabilities-based spiral development means to me that we will put something in the field when we believe it has military utility. Then we will improve upon it over time. That, in turn, means to me that the system meets a recognized threat and that it has sufficient maturity that we think it has a good chance of working. Even after it is in the field, we will continue to work on it and improve it.

What concerns me is that some of my colleagues and some people in the Pentagon continue to focus on deployment as a key event in spiral programs. No doubt that it will be true for some of the programs. But it seems to me that we almost need a new vocabulary to help us better describe how we test and how we put these capabilities-based spiral-development programs in the field.

Would you care to comment on that, please?

Secretary ALDRIDGE. I agree with you. The terminology is very ambiguous. I think the whole concept of spiral development has to go along with the spiral requirements process, as well as the spiral testing process. I think the terminology is, again, somewhat ambiguous. It could probably use some more rigor in exactly how we define it.

But the concept itself is very strong. I think it clearly gives the direction of putting systems into the field as quickly as possible so the cycle times of this acquisition process could be shortened. The risk can be reduced because we are going with more mature technology earlier. We can get rid of older equipment sooner, because it goes to the field. But the spiral development capability must also have a technology program that clearly can enter new technologies as it matures into the program to create the blocks of improvement. So that is a very key part of it.

Let me just make one other point of all this. Spiral development also goes with a thing which I call properly pricing the programs. Because even though you have a spiral development, if the program manager runs out of resources at the end of the year, the first thing he does, he slips the program, and you have just defeated the purpose of spiral development.

So you will hear a lot of talk within the Department about spiral development and properly pricing the programs up front. Those are two key elements that must go hand in hand.

Senator ALLARD. Then Senator Kadish.

Senator LEVIN. You just demoted him. [Laughter.]

Senator ALLARD. I am sorry. General Kadish.

General KADISH. That is an honor, Senator. [Laughter.]

Senator ALLARD. General Kadish, would you just review for some of us the management tools you have in place now, such as your

integrated master plan, integrated master schedule, and earned value management system, and the progress you have made in implementing these tools. Then maybe elaborate a little bit on have they been effective in providing you with the information you need to manage your programs in a disciplined way?

General KADISH. We have been working very hard to put management discipline in all phases of our activities. This has been a goal of mine for several years, to be as efficient at this as we possibly can. We have come up with the concepts. We looked at GAO recommendations, internal recommendations, consulted recommendations. We have come up with a system of management tools that we are, in fact, working on, as we speak, to manage this very complex program. It includes integrated master schedules and plans. It includes earned value management. It even includes weekly, and even daily, interaction with our executing program managers.

I guess if I were to give us a report card right now on how well we are implementing that, we have the right vision. I would give us an A-plus on that.

The implementation has been difficult, as you would expect, for something like this. I expect by the end of the year this will be full up and operating to my full expectations. But right now, we are probably halfway there on implementing some of these things.

We get pretty good cost visibility out of the earned value system. That is one of my major concerns, to make sure we know where we are from a cost and schedule standpoint.

So the tools we are putting in place, I think, are going to be effective. They already have been, to a large degree. They are absolutely necessary for a complex program like this.

Senator ALLARD. Thank you.

Senator Levin.

Senator LEVIN. Thank you, Mr. Chairman.

General Kadish, do you happen to have Section 8061, which is the section that was written by somebody, relative to exempting this test bed from operational testing?

General KADISH. No, I do not.

Senator LEVIN. Let me get you a copy of it here. I want to go through this with you. "Section 8061, the funds available to the Department of Defense under the heading Research, Development, Test and Evaluation Defense-wide may be used to develop and field an initial set of missile defense capabilities." That is defined in the next sentence.

So far, if you stop right there, that accomplishes what you were interested in accomplishing in terms of the budget. Would you say that is correct?

General KADISH. After the word "capabilities"?

Senator LEVIN. Yes.

General KADISH. I believe so, yes, Senator.

Senator LEVIN. If it stopped right there, that would achieve what you were trying to achieve when you said that you would like the R&D funds to be used for this 2003 and 2004 test bed?

General KADISH. I am not a lawyer, Senator. So I would have——

Senator LEVIN. Well, but is that——

General KADISH. That is the intent. I mean, that is clearly the intent.

Senator LEVIN. That is the intent of that language. I understand. That is the intent of that language?

General KADISH. Right.

Senator LEVIN. If you had put a period right there, that is what you intended to accomplish; is that correct?

General KADISH. Right.

Senator LEVIN. Now, it is the second half of that sentence which is the mystery that nobody seems to know how it got into the application here or in the proposal that came from the administration. It is this language that I want to read to you: "Such fielding shall be considered to be system development and demonstration for purposes of any law governing the development and production of a major defense acquisition program."

That is the language which I am talking about here this morning. You did not suggest that part of that sentence; did you?

General KADISH. I do not recall doing that. But in the development of these types of paragraphs, I think you can appreciate the fact that when the staff agencies and the legal community look at this, they may not have every law covered that may affect the funding issues. So my opinion would be that these types of clauses are in general used to make sure that we did not miss something in the process.

Senator LEVIN. These types of clauses, as far as we know, have never been used for any fielded system in history. Do any of you know of any fielded system that has been designated by law as a developmental system? Do you know of any, anybody here at this panel? [No response.]

We have searched. We can't find—you say this is the sort of language which is used. General, do you know of any fielded system that has been designated by law as a developmental system?

General KADISH. I do not. I have not thought about it, Senator, but I do not think so.

Senator LEVIN. Okay. Does anybody on the panel know of any?

Mr. Christie, do you know of any?

Mr. CHRISTIE. No, I do not.

Senator LEVIN. Secretary Aldridge? Secretary Crouch?

Secretary CROUCH. Outside my——

Senator LEVIN. Okay. Well, we do not either. So since your goal would have been accomplished, as you just testified, by putting a period after the word "defense capability," since that is what you wanted to do, use R&D money to develop and field this initial set of missile defense capabilities, and you do not know, no one knows, where this second half of the sentence came from, we are going to find out.

Secretary ALDRIDGE. I am going to go search. But I think the point is, I think we agree that it is not our intent to waive operational testing.

Senator LEVIN. Yes. Well, I am glad——

Secretary ALDRIDGE. We can come to agreement on what the words say to make that happen.

Senator LEVIN. That is good. That is very reassuring, and I hope our chairman and our full committee chairman will help us to ac-

complish that, strip out that language. We have to find out where that language came from, because the effect of that language. It keeps something in development which is now fielded, the effect of it is to exempt that system from operational testing of a development system.

Secretary ALDRIDGE. That was not the intent. I think the intent was, as General Kadish has said, a system that is in SDD, system development and demonstration phase, is an R&D program and uses R&D research. Maybe it was just an expansion of the first phrase for clarification. But whatever it is, I think we are in full agreement as to how to proceed. We can find acceptable language to make it work.

Senator LEVIN. Now, if you would help us find out how it happened, because it is troubling to me. It is obvious that the administration is trying to put a label of a deployed national missile defense system on what is really a test bed. That is troubling to many of us. That is exaggerating what is being fielded here for many of us. I think Senator Reed went through that with you.

But if at the same time there is an effort somewhere, somehow, by somebody unknown to the four of you who run these programs, language gets into a request to us that would exempt, effectively, this system from operational testing, should somebody try to exempt it, that is doubly troubling. I am glad to hear that none of you are trying to exempt it from operational testing.

Somebody here put that language in there for some purpose. It is troubling enough and a puzzlement enough to many of us but I am not speaking here for more than myself. I think some others who have expressed themselves on this are troubled by the exaggerated description of this as a deployed national missile defense system with your exaggerated capability as to the likelihood of success, Mr. Secretary, when it is really a test bed. If in fact, the motivation of this language is to immunize this from operational testing at the same time, it is doubly troublesome.

I will leave the ifs there, because you are going to clear up the mystery, Secretary.

Senator ALLARD. Senator Nelson, you are up, if you have questions.

Senator BILL NELSON. Mr. Chairman, I have plenty of questions. But I just looked at the clock. Is that a vote in progress?

Senator ALLARD. I think we are scheduled for a vote right at 12:00. Senator Levin had 3 minutes. He has wrapped up. I am wrapped up. If you would like to run a question or two then you can submit the rest in writing, if you would like.

Senator BILL NELSON. I am going to try to ask them all. Have they called the vote yet?

Senator ALLARD. No, not that I am aware of.

Senator LEVIN. If that is one light, they have called the vote.

Could someone check, please, as to whether a vote is on?

Mr. Chairman, we received a letter from Phil Coyle, who is the former occupant of the office that Mr. Christie now holds. I would ask that this letter on operational testing history be made part of the record.

Senator ALLARD. Without objection, so ordered.

[The information referred to follows:]

March 15, 2003

Honorable Carl Levin
Ranking Minority Member
Committee on Armed Services
United States Senate
Washington, D.C.
20510

Dear Senator Levin:

I understand that on Tuesday, March 18, 2003, the Committee on Armed Services will hold a full committee hearing to receive testimony on ballistic missile defense in review of the Defense Authorization Request for Fiscal Year 2004.

As requested by Committee staff, this letter is to provide you and your staff with some observations and information which may be useful as background for that hearing.

The Director, Operational Test and Evaluation, continues to take strong stands in demanding that military systems be effective and suitable. The Director and his staff along with the rest of the DOD operational test community deserve and require the encouragement and the steadfast support of the Committee on Armed Services and the U.S. Congress. I very much appreciate all you have done in this regard.

The technical challenges for missile defense are such that careful oversight will be required by this Committee for many years - probably decades - to come. To demonstrate an effective operational capability, the Service Test Organizations, who work together jointly with DOT&E, provide an operational perspective that is essential. This operational perspective is vital for any military system, but particularly so for missile defense because of its complexity. Working with the Director, Operational Test and Evaluation in OSD, the Service Operational Test Agencies provide valuable insights to the Program Offices, to Service and OSD leadership, and to the Congress. The early involvement of the operational test community can help avoid setbacks and delays, and help solve problems early that will be much more difficult and expensive to fix later. The early involvement of the operational test community will be key to missile defense systems that really work in realistic combat environments. I am confident that the future and ultimate success of missile defense will depend on the OT&E community. It is through the operational test community that you will know whether theater missile defenses

can dependably protect our sons and daughters serving in the military overseas. It is through the operational test community that you will know what kind of protection the full Ballistic Missile Defense System can provide. And it is through the operational test community that missile defense has its best chance for success.

If I can provide further information, please do not hesitate to have your staff contact me.

Sincerely,

Philip E. Coyle, III

Background Paper

The Importance of Operational Testing to Missile Defense

Introduction

Ballistic missile defense encompasses the most difficult set of programs ever undertaken by the Department of Defense. Because of the many technical and operational challenges in these programs, realistic operational testing is especially important. Often it is not until realistic operational testing that the Military Departments, the Pentagon and the Congress obtain the information needed to truly understand the operational capabilities of a proposed system.

Developmental testing is also very important, of course, but because of technology, schedule or budget limitations, developmental testing often does not address the issues that will be of most importance in combat. Operational capability must be examined though the perspective of the military user, the young soldier, sailor, airman or Marine who may take the system into battle. For that user, the environment in which the equipment will be used is key. Here the word "environment" is inclusive. It includes bad weather, as hot and cold weather, dust and blowing sand, dirt and mud, or conditions at sea can cause military systems not to work when needed. But "environment" also means the conditions of use, whether that means the heavy loading of systems in battle, such as the heavy use that radios and computer systems can see in battle, or the practical ways in which U.S. troops will use systems in battle. "Environment" also includes the ways in which the enemy threat may be deployed or may change or even negate the effectiveness of a system. Too often developmental testing does not take place in the user's complex environment, and usually it is not until operational test and evaluation that a more realistic environment is incorporated.

An interesting case in point is the latest version of the Patriot Missile system called PAC-3.

PAC-3 Operational Testing

The Patriot Advanced Capability 3, PAC-3, is essentially a traditional defense procurement. It has been through developmental testing and a first phase of operational testing, is in low rate production, and is being deployed in limited numbers in the Persian Gulf for possible use in a war with Iraq.
In developmental testing it appeared to be doing well hitting 10 out of 11 targets. However, those early tests involved the usual artificialities of preplanned intercepts. In more realistic operational tests conducted last year only three PAC-3s hit their targets out of seven tries, less than 45%. And only two of those three

PAC-3 that hit their target produced a kill, less than 30%. Against different types of targets, PAC-2 performed better, hitting two out of three targets in operational tests.

None of those tests included real SCUDs as targets. The Senate Armed Services Committee has urged that PAC-3 tests be conducted with SCUD targets but the Missile Defense Agency and the Army want to complete SCUD flight characterization tests first. The Army's current efforts to understand the flight characteristics of SCUD missiles are well justified, but this work should have been done some years ago. The laudable efforts by the SASC to urge realistic PAC-3 testing should not have been necessary. SCUDs are the most likely and intended target, and since operational testing by definition is supposed to be with realistic targets this should have been tried long ago. It has been over 12 years since U.S. soldiers were killed in a SCUD attack, so we know the threat is long standing and real.

Last year, following initial operational testing, neither the Army Test and Evaluation Command nor my former office, the Office of the Director Operational Test and Evaluation, found the PAC-3 system to be effective and recommended that it was not ready for full rate production. However, the pressures of war with Iraq have sensibly caused additional PAC-3s to be built and deployed to help protect U.S. and coalition forces overseas. The point is that without operational testing the Congress and the Senate Committee on Armed Services would not have known what the PAC-3 could do in a realistic situation. The Congress might have believed that PAC-3 was successful 90% of the time when it turned out to be far less than that.

Recognizing that the PAC-3 requires further testing, the President's budget request for fiscal year 2004 lays out another 23 new flight intercept tests to be conducted in 2003 through 2006. The first of these will be essentially developmental tests, with more realistic operational tests to follow.

The Missile Defense Agency says that they have fixed the problems that caused the PAC-3s to fail in operational testing. Nevertheless, in the heat and confusion of battle without warning, and against real SCUDs it would not be surprising if only 25% of PAC-3s hit their targets, about the same as air defense systems have done historically.

GMD Operational Testing

The centerpiece of the Bush Administration's missile defense program, as with the Clinton Administration, is the Ground-based Midcourse Defense system to be deployed near Fort Greely in Alaska. In calendar year 2002, the Missile Defense

Agency conducted three flight intercept tests. The head of the Missile Defense Agency, Lt. Gen. Ronald Kadish has told Congress and the press that he was going to pick up the pace of testing, but overall the pace of flight intercept tests has stayed about the same. With 20 or 30 tests to go (reportedly tests are planned out through IFT-26 or 27, not including operational tests) it could take many years before the GMD system would be ready for realistic operational testing.

Accordingly there is no need for the Administration to request a waiver from operational testing for the GMD system. It has taken 4 years to conduct eight flight intercept tests, but three of those failed. So that's five successes in four years. At that rate it could take another decade before the GMD program will have successfully completed its planned flight intercept tests in preparation for realistic operational testing.

By requesting a waiver from operational testing for missile defense, the Department of Defense is inviting the Congress to change the law such that operational testing is required not only before full rate production but also before fielding and deployment. Assistant Secretary Thomas P. Christie speaks to the importance of robust testing before deployment in his Annual Report for FY-2002. Mr. Christie is trying to change test practices to adapt to changes in acquisition practices, and his efforts deserve the Committee's strong support.

Near term GMD Test Plans

As reported in the press, since the failure of IFT-10, the most recent flight intercept test conducted last December 11, and - six days later - the President's decision to deploy the GMD system in Alaska, three flight intercept tests have been cancelled - flight intercept tests IFT-11, 12, and 13. IFT-13 will now be two tests of the new rocket booster, IFT-13a and 13b for the Lockheed and Orbital designs respectively. Neither will involve a flight intercept attempt.

This leaves IFT-14 and 15 which are each to be the first flight intercept tests with the Lockheed and Orbital booster designs, respectively. Reportedly IFT-16 is to be the dress rehearsal for deployment. Thus, the next flight intercept test, IFT-14, which reportedly is scheduled for October or so, 2003, will follow by almost a year IFT-10, which failed. The Missile Defense Agency has a lot riding on the flight intercept tests between now and 2004/2005. It won't be easy to successfully conduct several complex tests involving new hardware and software, and perhaps with new objects in the target cluster as well.

At this point it should be noted that the actual progress of the GMD program is no longer reflected in the numbering of the flight intercept tests, as compared with the original plan. Considering the content of the tests conducted so far, and subtracting

the tests that failed and tests that had repeated test objectives, then for all practical purposes the next flight intercept test could be numbered IFT-6 not IFT-14. Thus there still could be 20 flight intercept tests to go before the GMD system was ready for realistic operational testing.

Two and a half years ago, the first test with a tumbling reentry vehicle was to have been IFT-7, which came and went as only a repeat of IFT-3, 4, 5, and 6, not as the first test with a tumbling RV. This was reasonable since the GMD Program wasn't ready to do more. But as of now reportedly the first test with a tumbling target RV is not scheduled. Considering the current concerns about North Korea's missile work, we should be worried about North Korea launching an RV that doesn't have to be spun up - for them the easiest approach. A tumbling target presents discrimination challenges in relation to other objects in the target cluster that also may be tumbling such as the bus.

GMD Deployment Plans and Capability

Assuming the Bush Administration keeps its schedule for deployment in 2004, following perhaps only two or three more flight intercept tests, what capability will have been demonstrated? Lt. Gen. Kadish has testified before Congress, and told the press, that establishing an X-band radar on Shemya in Alaska was "the long pole in the tent" for the GMD system. The Bush Administration has still not requested funding for an X-band radar at Shemya and instead has let a new contract for a floating X-band radar to be deployed on the equivalent of an oil drilling platform. Such a floating radar will not be complete in time for the initial emergency deployment of the GMD system at Fort Greely, let alone for testing with other elements of the system by then. Similarly the Space-Based Infra Red Satellite system has slipped, and will not be available this decade. Without the discrimination capabilities of an X-band radar, and without SBIRS-High and SBIRS-Low, the rest of the GMD system is severely handicapped.

In its budget request for fiscal year 2004, the Missile Defense Agency describes its GMD program as part of "an integrated and evolutionary Ballistic Missile Defense System (BMDS) of initial modest capability." The Agency explains that, "While there is only one BMDS, there is no final or fixed missile defense architecture."

The lack of an overall architecture for missile defense is a handicap which creates uncertainty and confusion, and makes it more difficult for the Congress to make decisions about funding and for defense contractors to make decisions about engineering priorities.

Following deployment of the GMD system in 2004, there are to be significant Block upgrades every two years through 2014. These block upgrades are called

Block 2004, Block 2006, Block 2008 and so on out through Block 2014, corresponding to the year of insertion. Determining what operational capabilities these Blocks actually have will require operational testing.

Unresolved GMD Technical Issues

There are a number of technical issues that must be resolved before the GMD system can be said to have even a rudimentary operational capability. Three examples have received attention from news articles, mostly in the defense trade press. The witnesses at your upcoming hearing will undoubtedly address these and other issues with more current information.

1. All of the flight intercept tests so far have included both a C-band beacon and a GPS transponder on the target reentry vehicle. To be credible, the GBI must eventually show that it can hit a target with no targeting aids onboard the target reentry vehicle.

2. All of the flight intercept tests so far have included target trajectory and other target information provided to the interceptor before launch of the interceptor. In actual combat, all of this information probably would not be available before interceptor launch. Tests need to be done that show that if some or all of this advanced information is missing before launch, the intercept can still be successful.

3. Since the UCS Report on Countermeasures was published in April 2000, the most persistent criticism of the GMD program is that it has not demonstrated that it can deal with even relatively simple countermeasures. Reportedly, IFT-3, 4, 5, 6, and 7 each had only a single large balloon which did not resemble the target reentry vehicle. IFT-8, 9, and 10 reportedly each had three balloons, two small and one large, which again did not resemble the target re-entry vehicle in signature, motion or shape. Tests need to be done with decoys that resemble the target reentry vehicle in convincing ways. The decision of the Missile Defense Agency to classify information about flight intercept targets has appeared to critics to be an attempt to hide the Achilles heel of the GMD system. To be believable, the GMD program must demonstrate that when a decoy actually resembles the target reentry vehicle in some feature or features that the EKV can still tell the difference.

Capability-based Acquisition and Operational Testing

Last December, when President George W. Bush announced his decision to deploy missile defenses by 2004, Defense Secretary Donald Rumsfeld explained in a press conference that at first those defenses wouldn't be very good. He said

the capability would **not** be defined by the classic military phrase "Interim Operational Capability", namely something new with proven warfighting worth, but rather capability, as Secretary Rumsfeld put it, "with a small "c". Nevertheless, he said, even at first this new missile defense would be "better than nothing".

The decision to deploy the Ground-based Mid-course missile defense system by the end of fiscal year 2004 is a remarkable example of a new procurement philosophy at the Pentagon called "Capability-based acquisition."

The traditional approach - sometimes called "fly before buy" - is to wait to procure a new military system until it has successfully demonstrated that it can work in realistic operational tests designed to simulate real-world conditions. For major defense acquisition systems, the law requires that full rate production cannot begin until the system has been through realistic operational testing and the results reported to the Secretary of Defense and the U.S. Congress. In practice, if the added military utility turns out to be only marginal, such systems are often delayed, redesigned or cancelled.

But major military development programs can take decades, and in an attempt to speed the process further, "capability-based acquisition" was conceived. The idea is to get new capability to the warfighter faster, and to build that capability gradually in steps over time. The Services have used this approach successfully for many years in developing major upgrades to existing systems in successive blocks or models. However, these block upgrades themselves also can take a decade or more, and so capability-based acquisition aims to further streamline the process by shortening development times still further, and by accepting incremental improvements in military value that might not have been considered worthy of funding in the past.

However, as the President's decision shows, "capability-based acquisition" can mean buying new equipment which has not been realistically tested, and with little or no demonstrated operational military utility. Neither the Ground-based Midcourse Defense system, to be deployed near Fort Greely in Alaska, nor its sea-based adjuncts, to be deployed on Navy ships, have gotten far in developmental testing, and neither has begun, let alone completed, more stressing and realistic operational tests. That is why the development and testing for both these systems - over the next two years, and both before and after initial deployment in 2004 - will be so important.

At the press conference mentioned earlier, Secretary Rumsfeld cited the Predator Unmanned Aerial Vehicle as an example of this "capability-based" approach. In a statutory sense it isn't, since the Predator went through realistic operational testing

over two years ago and before going into full rate production. Also, its limited deployments before operational testing were in fact tests themselves, where the Predator was operated in realistic conditions and the results fed back into further development. In another sense, however, the Predator is an example of capability-based acquisition in that it did not meet its military requirements in those tests, was found to be not effective and not suitable, and yet understandably many Predators were bought for the war in Afghanistan and more are being bought for possible war in Iraq.

The military users wanted the Predator to be able to fly in less than ideal weather and at night, to provide reliable communications, to be able to complete flights without having to abort, and to meet its maintenance requirements so as not to add substantially to the burdens U.S. troops already face overseas. Also, the military users wanted better discrimination from the Predator's sensors. For example, in operational tests, the infrared sensor on the Predator only achieved a 5% probability of recognizing a tank, such as a Russian T-72 or U.S. M1A1 tank, compared with the desired, objective probability of 90%. The Predator also was unable to locate targets as accurately as required.

Nevertheless, the Predator brings a new type of reconnaissance to the battlefield, and although that capability falls short of what its military users wanted, and still want, it is still much "better than nothing."

Of course, such judgements are relative. The current version of the Predator costs only about $5 million apiece, whereas some complex new systems can cost tens of billions.

The point is that it was not until the Predator went through operational testing that the DOD and the Congress obtained a realistic assessment of the Predator's capabilities.

During that same press conference, Secretary Rumsfeld also cited JSTARS as an example of capability-based acquisition. Again, in a statutory sense it isn't either since JSTARS went through realistic operational testing in 1998 and 1999 before going into full rate production. Also, the deployment of JSTARS in Bosnia in the winter of 1996 was planned and conducted as an operational test with DOT&E oversight, and was the first phase of operational testing to be conducted. JSTARS also provides new reconnaissance capabilities in battle, however it has not yet demonstrated the ability to fulfill the "Target Attack" part of its name and mission.

The dilemma the Pentagon faces is how far to take this new procurement approach. If everything the Pentagon bought were costly with marginal capability, U.S. troops overseas would revolt, not to mention the Congress and the American

taxpayer. But when the expense is relatively modest, as it is with the Predator, most U.S. taxpayers would probably support it, even knowing that it fell short of its initial promises. While roughly half of the first 50 Predators have crashed or been shot down, the total cost of all those fallen Predators is only a tiny fraction of that projected for some major defense acquisition programs.

If the Pentagon cuts corners in development and testing in an effort to speed new equipment to the field, U.S troops will become the guinea pigs, paying the price with training costs, with time consuming workarounds and fixes, or with lives lost on the battlefield. Also, most of the cost for new military systems comes from support in the field, including the costs for spare parts, maintenance and repair. Inadequate testing could create a situation where the U.S. military is taking delivery of undependable new systems that don't work very well, and that are unusually costly and burdensome to sustain in the field. A waiver from operational testing would likely create a situation - as was the case with the PAC-3 until it saw operational testing - where the DOD and the Congress expected a system to work far better than it actually did in realistic conditions.

If, on the other hand, Pentagon procurements deliver some worthwhile new capability - as is the case with the Predator and with JSTARS both of which went through operational testing - then the Congress and U.S. taxpayers will justifiably see value and have the information needed to judge that value.

Senator ALLARD. I will find out how much time is left.

Senator BILL NELSON. Thank you.

Mr. Christie, in your February assessment of the ground-based national missile defense program, you stated that "only a very limited range of engagement parameters have been explored so far," that "overall only limited potential functionality has been demonstrated in testing."

Can you explain?

Mr. CHRISTIE. Up to the point that we wrote that report last fall, the hit-to-kill capability had been demonstrated. We had discovered problems with the booster. The last flight test was a problem because of a failure of the kill vehicle to separate from the booster. We had non-operationally realistic geometries out of necessity, launching the targets from Vandenberg to Kwajalein. We had a simulated mid-course tracking system located on Hawaii that would not be applicable in an operational sense.

So we had demonstrated quite a bit. But we had also found that there are things that we should be doing in the very near future to make testing more operationally realistic. That is exactly what the test bed is designed to do, to correct many of those shortfalls in realistic operational testing capability.

Senator BILL NELSON. So, since your statement in February, there has been such sufficient confidence in the system and the testing that you feel like that it is not going to affect the effectiveness in order to deploy this in 2004?

Mr. CHRISTIE. I was reporting at that point in time on the testing that had been done up to that point and my assessment of the plans that are on the table. I do not believe I made those kind of statements about the test plans that are presently on the table,

and particularly with respect to the test bed that we have been discussing.

Senator ALLARD. Senator, just for your information, we have about 10 minutes left.

Senator BILL NELSON. Okay.

You stated, in your recent operational assessment, that the current national missile defense system had no current operational capability?

Mr. CHRISTIE. That is correct.

Senator BILL NELSON. Yet you have had some interceptor successes?

Mr. CHRISTIE. That is right.

Senator BILL NELSON. Why, then, is there no current capability against a real threat?

Mr. CHRISTIE. A real threat, as we have talked about earlier today, comes from North Korea. We have not tested that geometry. We do not have a capability at this time to defend against that kind of a threat. So at this time, we do not have an operational capability.

Senator BILL NELSON. All right.

General Kadish, your budget documents show that you are going down parallel paths to acquire the ground-based boost phase and a space-based phase. Now, it is my understanding that the space-based test bed that you plan will not actually be used to shoot down a test missile, whereas the ground-based will be used.

So is it true, the assumption that I am making, that you do not plan to actually shoot down a test missile with a space-based? If not, why not?

General KADISH. We do have the parallel paths, as you point out. The nearer path is the terrestrial-based, whether it is ground or sea eventually, we intend to move out very aggressively on, and hopefully reduce the risk, to space-basing those types of interceptors.

At the same time, we have a path that we are pursuing a little bit later in time to put the space test bed up, as you suggest. It is our intent, as far as at least my internal discussions, that test bed that we would space-base would serve two functions. One is to demonstrate intercepts from interceptors that would be on orbit, so to actually do an intercept, and to work out all the difficulties involved with having a constellation of that size potentially on orbit.

But it would be a test bed. It would actually try to do those types of things that I described, but only in a test mode.

Senator BILL NELSON. Mr. Chairman, what is our pleasure? I came here at 9:30. I have a bunch of questions. We are going to have to go vote. I would like to go vote and come back and continue my questions.

Senator ALLARD. Everybody here on the committee has had one round of questions. Then we had a shortened second round, Senator Levin and myself. We are in the second round with you. If you have some questions, you may want to submit those in written form. If the member wants to come back and ask some more questions, I will be glad to come back and chair the committee for you.

Senator BILL NELSON. I think you need my vote on this particular vote.

Senator ALLARD. We are voting on Estrada. So that is the vote up on the floor.

Senator BILL NELSON. That is why you need my vote.

Senator ALLARD. Okay. Then let us go ahead and I will recess the committee, and we will go ahead and vote, and we will be back. If my information is correct, we have about 6 minutes or so, the vote will end. So that will give us time to get down there. We will get back probably about 25 after, I would guess, and we will give you an opportunity to ask some more questions.

Senator BILL NELSON. If we are going to completely throw off the schedule of these folks, I do not want to do that.

Senator ALLARD. That is a good point. What are your schedules? Do your schedules permit you to be here for a while longer? Does anybody have a problem? [No response.]

Okay. Let us go ahead, and we will come back.

[Recess.]

Senator ALLARD. We will go ahead and call the committee back to order. We will go ahead and ask Senator Nelson to resume his questioning.

Senator BILL NELSON. Thank you, Mr. Chairman.

All right. General, we were right in the middle of a questioning about the parallel tracks on the space-based and the ground-based. You had just started your answer.

General KADISH. Let me repeat and then try to answer the question completely. We do have parallel paths for boost phase. The reason why we do have them is because it is a very risky proposition with the time lines and the phenomenology involved. So we set up this parallel path approach that has terrestrial, which includes sea-based and land-based approach, as well as a space-test-bed approach that comes later in time.

Our primary path is the terrestrial approach, in order to prove out the concepts, get the phenomenology and to provide potentially as early a capability as we can, given the constraints of geography surrounding the boost phase. We intend to pursue a space interceptor test bed, as is described in our budget documents. That test bed will have two fundamental purposes being space-based. One is to see and test intercepts from space in very limited test bed context, as well as to prove out the difficulties and work out the difficulties of having a constellation of that nature on orbit, very limited number of potential satellites.

That is the concept. We have a lot of work to do on both those efforts. But we have a primary path and a later path, using the space-based test bed.

Senator BILL NELSON. When would you estimate that you would do a test of the space-based?

General KADISH. We have—of the space-based test bed, it could be—we are working out some of the details of that strategy right now. My best guess, at this point in time, would be sometime in the—well, I will give you a wide range—Block 2008 to 2012.

Senator BILL NELSON. You would consider that you would have to have a test of that to determine if it was going to be effective; would you not?

General KADISH. Yes, sir. I mean, that is the fundamental pillar of all our activities under missile defenses, to test them as best we

know how, given their complex nature, to see that they work properly.

Senator BILL NELSON. 2008 to 2012, is that right?

General KADISH. Right.

Senator BILL NELSON. Are you still going to be around?

General KADISH. Senator, I hope not. [Laughter.]

I intend to be around, but maybe not in this position.

Senator BILL NELSON. Let me ask a policy question to the secretary over there. That would be the first time that we would be weaponizing space. There has been a policy up to this point that we are not going to weaponize space. Tell me about your thinking with regard to the change of that policy.

Secretary ALDRIDGE. I should quickly kick this ball to J.D. Crouch, who is the policy guy. But let me just respond in the sense that we are heading down the path for missile defense that is looking at all elements: boost phase, mid-course, and terminal. It is a logical step for an effective missile defense system to have a very effective boost phase intercept system, because you avoid a lot of problems. You basically can cover the world. You can avoid any issue of discrimination.

Now once you have accomplished that, then you look at various ways to do boost phase. We are looking at airborne lasers. We are looking at ground-based interceptors. We are looking at space-based. Any one of those might work and many of them may not work.

So from the point of view of laying out a program plan of development, we are looking at all those parallel phases. Now, whether or not we actually go and do one of these to build a test and do an intercept will depend on obviously getting the money in the budget and getting congressional approval to spend the money in that direction. So I think the policy issue will have to be addressed. But right now, we are laying a plan that has that as one of the options in it.

Senator BILL NELSON. Do you not have a lot of promise on your boost phase right now with the Aegis system?

Secretary ALDRIDGE. That is correct. I would say probably the most effective boost phase would be the airborne laser. It is the one that probably has more effectiveness because of its essentially worldwide coverage and zero time of flight system.

Senator BILL NELSON. How far along are we in the testing of the airborne laser?

Secretary ALDRIDGE. General Kadish can probably address that specifically.

General KADISH. Yes, sir. If I may, Senator. We are at what I call the hardware phase of the airborne laser. We are probably within 18 months to 2 years of demonstrating that this laser system could actually shoot down a missile. That is quite remarkable.

Senator BILL NELSON. Within how long?

General KADISH. Eighteen months to 2 years, depending on how successful we are building it all on the airplane over the next couple years. It is very risky, I would assess. But the technology appears to be there.

So where we stand today is we have an airplane, a 747, that is configured to accept the laser as its cargo to carry around. We got

that integrated. It is flown. We have gotten the test program under way of that part of the program. We are assembling, as we speak, at Edwards Air Force Base, the laser component on the ground in a 747 carcass to make sure it fits. This summer we plan to have first light out of that laser setup in the carcass of the 747. If all goes well over the next 18 months to 2 years, we will integrate that in the airplane and fly it to attempt to shoot down a boosting missile.

So we have made remarkable progress; not without its problems and difficulties, but that is heading in the right direction at this point in time.

Senator BILL NELSON. That is pretty dramatic.

General KADISH. Yes, sir.

Senator BILL NELSON. If you can shoot down a rocket in its boost phase with a laser from a big airplane, you can shoot down anything.

General KADISH. I would not go that far, Senator, but we can do a lot of damage.

Senator ALLARD. Senator, I have always advocated and I have always liked the concept of going after the boost phase, because you drop the warhead or weapon of mass destruction right back into the lap of those who started it. I think that works better than any peace treaty out there, frankly.

Senator BILL NELSON. Although presumably the warhead would not be armed. Unless they do not have the arming techniques.

Senator ALLARD. You would hope not anyway.

Senator BILL NELSON. That is something. So, you are that optimistic on the testing on the laser?

General KADISH. I am cautiously optimistic. In fact, I would invite members of the committee to go out there and see the hardware, if you have a chance, at Edwards Air Force Base. But when you go out there and you see the hardware, talk to the people working on this. They are worried about their next crisis in front of them to meet schedule and cost effort. But I think there is a very quiet confidence they will be able to do this. It is a matter of when and what problems will come up.

There are a lot of skeptics on this. I think that is a healthy attitude to take right now. But as Secretary Aldridge points out, some things will work, some things will not. But this is on track right now.

Senator BILL NELSON. If you perfect the technology on laser from a platform of a sub-sonic airplane, can you use that technology? There is no reason why you could not use that on a space-based platform, is there?

General KADISH. There are different challenges in space. The size of the mirrors require the optics, which in and of itself is a major accomplishment of ABL, to be put on orbit and then having, basically, a chemical plant that you have in the back of that airplane on orbit, are significant challenges. The fundamentals are the same. It would give us a lot better confidence, I think, of going to space. Of course, space solves your geography problem, in a sense, because you can use those weapons more effectively from the high ground of space.

But there will be very difficult challenges to move that to space. I would not characterize it as a trivial matter at all.

Secretary ALDRIDGE. Plus the fact that we do not have a launch vehicle to do it, because it takes several hundreds of thousands of pounds for a space-based laser. There is just no way to get it there at this point.

Senator BILL NELSON. With some of the rockets that we are going to go to Mars with, we can do it with that. [Laughter.]

Secretary ALDRIDGE. We hope.

Senator BILL NELSON. All right. Let us talk about decoys. Let me ask you, Mr. Christie, do you have a high confidence that we will have the capability to discriminate from the decoys when we deploy this thing in 2004?

Mr. CHRISTIE. High confidence with certain decoys, yes. We have tested with some decoys already and demonstrated a discrimination capability. We will be carrying out even more difficult tests of counter-measures. But without getting into classified information, I cannot speak to what we will demonstrate with specific decoys between now and then. We can provide that answer to you for the record.

Senator BILL NELSON. Okay. I would like to follow up on that.

Senator ALLARD. Go ahead.

Senator BILL NELSON. No, no. I mean in an appropriate setting, in a classified setting at some point.

Senator ALLARD. Like many of the gentlemen on the committee, for example, if you want a classified briefing on either subject, usually just contact them. They can set aside a room there. It is in S–407, I believe it is. That classified briefing can be provided for you.

Senator BILL NELSON. Secretary Aldridge, what are we doing to ensure that, as we try to orbit a constellation of space-based radar satellites, and they are not being designed for missile defense, but might be able to provide a global missile defense tracking capability as a side benefit. What do you think about the potential side benefit of this kind of system?

Secretary ALDRIDGE. That is very difficult. The space-based radar that is being considered by the Department is a radar that looks to the ground. It is a radar that is trying to detect targets moving and to provide some imaging capability. So it is not designed to be tracking missiles in space. It is really looking downward. The concept is in a fairly low earth orbit. Yet we are looking at other concepts that could be—maybe you would put it at a higher orbit.

I believe, really, the direction that we would like to move was what used to be called the SBIRS-Low program, now called Space Tracking and Surveillance System. It is a space-based system designed exactly to do what you would like to do. Only now it looks up into the orbits that would be for missiles, rather than looking down on the ground. That program has been restructured. As you may recall, there were some difficulties with that, that we had last year. We restructured the program. We are going to launch two satellites in the 2006/2007 period that will be prototypes that would lead on to other systems later on.

That is carried as part of the missile defense program. It is carried under General Kadish's activity. It is fully integrated with the work we have underway for missile defense. That is perhaps the

right way to go, as opposed to trying to make a third mission of a space-based radar.

Senator BILL NELSON. General, with regard to the boost phase systems, the boost phase interceptor has to be very fast or it has to get very close in order to be effective. So what are the general design goals of the boost phase system? What are the regions that you might want to have covered by such a system? Where would that system have to be placed, other than what you have already told us about in Alaska and down at Vandenberg?

General KADISH. The general characteristic of a boost phase defensive system is such that you have to be closer to your intended target than you would in the mid-course phase or in the terminal phase, obviously. It is rather up close and personal for terrestrial-type of activities. But if you look at the geometries, if you have a boosting missile and you have the kinetic fly out of another missile to catch up to it, you want to be in the general vicinity of that boosting missile, measured in hundreds of kilometers.

Space-basing gives you a bigger advantage because you could be closer to any point on the ground from space than you could be if you were deployed specifically on the ground. So one of the major constraints to a boost-phase activity is that you have to be close to the borders of the offending country that you are trying to defend against.

There are a lot of advantages if you could make that work. That is why we have the parallel paths of having boosters with the proper velocities. When you have boosters doing kinetic energy, you have time-line problems because the time lines are very short. When you have the speed of light of a laser, you have the speed of light, so you do not have the fly-out times of a kinetic booster. That is why we are proceeding on all those parallel paths.

So I guess the primary constraint, if you want to call it a constraint, or characteristic of boost-phase defensive systems is that they have to be close to the boosting missile to defend against it, relatively speaking, in regard to the mid-course or terminal phases.

Senator BILL NELSON. If you went to a space-based system, how many satellites would you have to have giving you tracking coverage in order to get 24-hour coverage of your potential enemy launch regions?

General KADISH. That is a difficult question to answer. But let me give you some ranges. It is difficult because you have to decide what type of capability you want. In a layered, multifaceted system that we are building, a space-based interceptor boost phase system would not be the only system we would depend on. So you would have a different constellation, if it was the only system, than you would if you have other layers in the process.

On the most likely side, we have done calculations, and I have seen analyses that say we can do it with as little as potentially 60 or 70 interceptors to as many as 300 or more. It goes geometrical from there, depending on how robust we wanted to be in the things we are talking about.

So I think affordability here, if we ever go down that route, is a major issue. The complexity of those constellations is one of the major technical risks associated with it. But it is very attractive, as I pointed out, from a geography standpoint.

Senator BILL NELSON. If you get to the time period of 2008 to 2012 that you talked about and start to deploy space-based assets, if we were to ever have a policy decision that you wanted to have them removed from space so that space would not be weaponized, is that being put into your thought process?

General KADISH. Senator, I am not the right person to address the policy issues of this. We will certainly comply with the policy of the Department and Congress through the appropriate process. I think that is better left to Secretary Crouch.

Senator BILL NELSON. Secretary Aldridge, Mr. Christie, Secretary Crouch?

Secretary CROUCH. Sure. I think your question was, "Would the system be capable of being extracted?" Again, I think we are in the very early stages here. So, whether or not it would have that kind of a capability obviously for something on orbit, you would have the options of trying to physically take it out of space, which I think would probably be very difficult and very expensive. You might also have the options of de-orbiting the system.

But I think that those would be technical capabilities that you would have to build in to the system, if you wanted to have the option of being able to do that.

Senator BILL NELSON. That is correct. But the technical capability has to follow a policy decision. That is why I raised the issue for you to start thinking about.

Secretary ALDRIDGE. I think it is probably a chicken-or-egg issue, because if it does not make any technical sense, then why do we ask for the policy change? We do have to understand what is the technical difficulty of making this happen and the cost. It may be just prohibitive. But I think in terms of what we are doing now is we are just studying this issue and trying to get some technical assessment of does this make any sense long before we ask for—even address the policy.

Senator BILL NELSON. Okay. Back on January 31, a senior defense official was quoted as saying, "It is not clear how the national missile defense system to be deployed by 2004 will be manned 24 hours a day." That was the quote. Then a spokesperson for the Missile Defense Agency was quoted as saying, "The Missile Defense Agency is an R&D agency that has no operational control over the system it develops." The quote continued, "The systems are turned over to the military services for operational use." That is the end of the quote.

So, how can your agency continue to improve and test if the system is going to be turned over to something like the Army for operational use?

General KADISH. Senator, I think I alluded to this earlier in our discussions with the members. But let me put it in this context: We have a unified command plan change now that puts STRATCOM as a primary interface with missile defense. Then we have to deal with NORTHCOM as well. In the process of putting this system together and putting it, what I would call, on alert, we are actively discussing now just that very question of how do you do both at the same time.

I am very confident that we will be able to work out an arrangement that does such a thing. It would be a very practical approach

to the problem. We have some experience with that, even today in our strategic systems of how you test and operate at the same time.

Those details, however, have not been worked out. We are working on those issues as we speak. I would expect that over the coming months, and over the next year especially, those issues will be addressed. In fact, I think without having the test bed and the imperative to make it operational, we would have a very hard time of getting any operational concepts put together to operate such a system in the short run.

So I think that is a major benefit. As difficult as that will be to work out, it will be a major benefit of us going down this path, to get the warfighting using communities on all our systems more familiar with how we ought to operate them, and then we can respond to what they think ought to be done in the future.

Senator BILL NELSON. If you are going to have 16 more tests, and this thing is operational in 2004, you are really going to have a challenge of how do you pull it off of operational to get all those tests done.

General KADISH. I think it will be a challenge but a welcome one.

Senator BILL NELSON. Since the President's decision to deploy the ground-based mid-course missile defense by 2004, the flight test schedule does not seem to have kept up. Three intercept flight tests have been canceled. Now, why did you not request enough funding to complete the flight test program with the current interceptor design on schedule, while also developing the new boosters? When will the objectives of the three canceled flight tests be completed?

General KADISH. I think that, after the last flight test, the best way I can answer that is we took a look at what we had to do and what we have already done and tried to be good stewards of the taxpayers' money and said: If we did the flight test program that we had planned to do, using surrogate booster, while at the same time putting new boosters into play, two things would happen.

One, is we would repeat basically what we already knew in the flight tests that we would do using the surrogate booster. We would not be able to change the configuration. So we would be doing tests confirming what we already knew about the system. But we would probably have increased our confidence on the reliability.

Traded with that would be the second thing, and that is that there is only a finite amount of people involved in this program at this point. We wanted to focus their attention on what really needed to be done.

So the conclusion we collectively came to, and I think is validated by Mr. Christie, is that it was prudent to focus our attention on booster flight tests. We want to start up the intercept tests in the proper configuration that we really want to test, and suspend the other types of tests. The marginal confidence and increase in knowledge would not necessarily be worth the expense of those tests.

So we balanced the program. That is the effort we are trying to execute right now. I think it is a prudent and wise decision at this point.

Senator BILL NELSON. You want that system in Alaska by the end of 2004. You have that X-band radar. It is not going to be

ready by then. So Mr. Secretary Crouch, will the President's planned deployment of the national missile defense system in Alaska still go ahead by the end of 2004, regardless of the readiness of the radar?

Secretary CROUCH. Yes, sir. My understanding is that the modest capabilities that are planned for that system do not require the sea-based X-band radar that you are speaking of. But obviously, that sea-based X-band radar will, when it does come on line beyond 2004, will provide some additional capability to that system. But its primary purpose will be to engage in testing for the system.

Senator BILL NELSON. Where is Shemya?

Secretary CROUCH. Shemya is at the end of the Aleutian chain in Alaska.

Senator BILL NELSON. Okay. So, that is a little island, you have it there or the floating platform. Your answer would be applicable to both?

Secretary CROUCH. At this point, there is nothing in the budget that would put the X-band radar in Shemya. That was part of the old national missile defense system.

Senator BILL NELSON. General, you have had five successes in 4 years. You have had, tell me if this is right, eight flight interceptor tests and three of those have failed. Do you have the confidence now that you are getting your hands around the problems as you have developed, so that we are not going to have that kind of success rate in the future, on your future tests?

General KADISH. I am very confident in the approach we are taking to the testing program. It is not only flight tests; it is ground tests, it is simulations, it is a whole series of different things that build our confidence.

In regard to the intercept tests, you are correct. There were five successes in 4 years. But four of those successes occurred in, I think, about a 13-month or 14-month time period; and three out of the eight failed. Of the three failures that we have had, one of my main frustrations is that they occurred because we made a mistake in building the system, effectively a quality control mistake. When you are dealing with prototype hardware of this nature, unfortunately this occurs all too frequently.

So one of the main focuses that I had in the program for almost a couple years now, and it is coming to fruition with a vengeance right now, is something called mission assurance. I think you might be familiar with it. That has become the number one criteria, even in our source selections, to make sure that even our prototype hardware, our first hardware that we built, now that we know the fundamental technology works, needs to be built properly. These are very complex systems. We are going to pay a lot of attention to that effort.

So my confidence stems from the fact that we have a basic knowledge of the technology now. We know how to integrate it. We will get experienced with it, with this test bed that we will make operational. With the proper focus on mission assurance and quality control, we could build it the way we need to build it.

Senator ALLARD. Senator, we need to wrap it up. This panel has been here for 3½ to 4 hours.

Senator BILL NELSON. So have I, Mr. Chairman; and I have just completed my questions.

Senator ALLARD. Okay. Thank you.

Again, I would like to thank the panel for their time and willingness to answer the questions from the members of this panel. I want to thank you very much for your dedication and your good work. Thank you. We are adjourned.

[Questions for the record with answers supplied follow:]

QUESTIONS SUBMITTED BY SENATOR CARL LEVIN

BALLISTIC MISSILE DEFENSE PROGRAMS

1. Senator LEVIN. Secretary Aldridge, many of the ballistic missile defense programs currently being funded have no established performance goals, architectures, or cost estimates. When will such goals be established, how much money do you plan to spend on these programs prior to establishing such goals, and which other major defense programs do you plan to develop with no concrete performance and cost goals or overall architectures?

Secretary ALDRIDGE. The Secretary of Defense was definite about goals and priorities for missile defense in his memorandum of January 2, 2002, which established ballistic missile defense as a single program of work. The Missile Defense Agency (MDA) immediately established technical objectives and goals for a single program to develop layered, integrated, ballistic missile defenses in depth for our homeland, deployed forces, and friends and allies. The current Statement of Goals provides even more detailed goals as they relate to development for Block 04 of the Ballistic Missile Defense System (BMDS). In keeping with these goals, MDA developed cost estimates and technical proposals to provide missile defenses as soon as practical. This work created the budgets for fiscal year 2003 and fiscal year 2004. As development and fielding progresses, MDA will adjust goals and plan for technical development to keep pace with the ballistic missile threat while providing affordable missile defenses. Consequently, while there is a Block 04 architecture and cost estimate for limited fielded defense, new technical capabilities responsive to emerging threats drive an evolving architecture that may change significantly as the BMDS becomes more effective in future blocks.

TESTING PAC–3 AGAINST SCUD TARGETS

2. Senator LEVIN. General Kadish, when do you plan to test the PAC–3 system against actual SCUD targets and what is preventing you from doing so now?

General KADISH. Testing of the PAC–3 missile became an Army responsibility upon transfer of the program to the Army on March 31, 2003. MDA is still responsible as a ballistic missile target provider, however, and stands ready to support the future PAC–3 test program. As a part of the development and initial operational testing of the PAC–3, we did not have actual SCUD targets available in appropriate quantities and sufficient lead time to incorporate them into our test program. There are a number of risks associated with the SCUD missile, such as its accuracy, that make it impractical at many test ranges. The resulting restrictions, including reliability, safety, environmental and repeatability concerns, made SCUD-representative targets more appropriate for early testing. Additionally, our testing philosophy is to test against targets that represent a variety of threat solutions so that we have a robust system capable of defending against a wide, variable range of threats. This approach has reaped benefits in the current conflict in Iraq.

DEPLOYING NATIONAL MISSILE DEFENSE SYSTEM

3. Senator LEVIN. Mr. Christie, did you advise the President or anyone else to deploy a national missile defense system in 2004?

Mr. CHRISTIE. I did not. However, I fully support building the test bed to support more realistic testing and developing a concept of operation. Also, the test bed may have some inherent capability that could be employed in the event of a ballistic missile attack on the United States.

APPROVING BLOCK 04 MISSILE DEFENSE SYSTEM

4. Senator LEVIN. Mr. Christie, are you going to approve and implement operational test plans for the Block 04 missile defense systems prior to September 2004, so that we will know what the demonstrated capabilities of the fielded systems are by the time they are fielded?

Mr. CHRISTIE. I will review and approve the operational test plans for the Block 2004 test bed. Each ground and flight test event will address both developmental and operational test objectives. I will review and comment on the developmental plans and approve the operational plans. This process applies both prior to and after the 2004 deployment.

OPERATIONAL TESTING FOR MISSILE DEFENSE SYSTEMS

5. Senator LEVIN. General Kadish, when will operational testing in accordance with current law for the ground-based national missile defense and the sea-based missile defense systems be conducted?

General KADISH. Current testing of the Ground-Based Midcourse Defense (GMD) element developmental prototype is structured as combined Developmental Testing/Operational Testing (DT/OT), occurring in a Consolidated Test Force (CTF) environment. A CTF environment brings together developmental and operational testers from both the prime contractor team and the government in a common forum to plan and execute all testing in accordance with combined DT and OT objectives to the maximum extent practicable. Because GMD is an evolutionary development, at designated intervals this process culminates in BMD elements characterization, performed by the Operational Test Agencies (OTAs), i.e., Army Test and Evaluation Command (ATEC), Air Force Operational Test and Evaluation Center (AFOTEC), and Joint Test Interoperability Command (JTIC). At the time of each "production off-ramp," i.e., the transition of the developmental configuration into production at some plateau in its evolution, an assessment of the OT shortfall for that specific system configuration will be made. Based upon this assessment, OT of the specific configuration will be conducted, as required, to eliminate the shortfall.

The Aegis Ballistic Missile Defense Program has a Memorandum of Agreement with the Commander, Operational Test and Evaluation Force (COMOPTEVFOR), the Navy's OTA, to participate in the planning and observe all Aegis BMD Block 2004 testing. Within 60 days following the conclusion of each test, COMOPTEVFOR provides a "Letter of Observation" which provides formal OTA feedback regarding system performance to the Program Director, Aegis BMD. COMOPTEVFOR's recommendations are then considered and, if possible, implemented in subsequent testing. Flight Mission 9, which is currently the last test of the Aegis BMD Block 2004 activity, is currently being planned as a combined DT/OT. COMOPTEVFOR will conduct a formal Operational Assessment of this system element.

AEGIS SHIPS

6. Senator LEVIN. General Kadish, the 2004 national missile defense system to be deployed in 2004 relies on Aegis ships off the coast of North Korea to protect Hawaii from missile attack. How many ships are required to provide protection for Hawaii on a 24-hour, 7-day a week basis (as well as to provide adequate self-protection for the ships) and does the Navy have "extra" ships that it has agreed to provide for this role? Has the Navy agreed to provide these ships on a 24/7 basis?

General KADISH. This issue is being actively worked directly with the Chief of Naval Operations and his staff. This joint effort includes a coordinated analysis of operational task force, and is considering stationing one or two ships in the vicinity of the Sea of Japan to provide Surveillance and Track Data to the BMD system. The Navy will then determine how best to protect the ship(s).

7. Senator LEVIN. General Kadish, do the Aegis ships to be deployed off the coast of North Korea as part of the Block 2004 system have the demonstrated capability to track an ICBM targeting Hawaii from North Korea with enough accuracy to prosecute an intercept using a ground-based missile defense (GMD) interceptor? If so, how was this capability demonstrated? Please provide a detailed answer at the classified level, including the expected and demonstrated Aegis track accuracies as a function of time compared to the handover requirements of the GMD interceptor.

General KADISH. In the brief time since the withdrawal from the Anti Ballistic Missile (ABM) treaty, we have demonstrated the capability of Aegis ships to track ICBMs with its Spy–1 radar in Integrated Flight Tests 9 and 10. We cannot as yet

say we can provide data accurate enough to prosecute an intercept using a GMD interceptor. However, our results are encouraging and support further analysis, system modification, and testing of the extent of the capability to provide not only cueing, but also, on certain trajectories, direct support to the interceptor.

8. Senator LEVIN. General Kadish, can the Aegis ships planned to be deployed off the coast of North Korea as part of the Block 2004 GMD system defend themselves from anti-ship cruise missiles while simultaneously tracking an ICBM which has targeted Hawaii, and will the ICBM track from the ship have sufficient accuracy to prosecute an intercept using a GMD interceptor?

General KADISH. Although the Aegis ship will not be able to conduct other missions using the SPY–1 radar while conducting the BMD mission, the ship still retains some self-defense capability through use of its Close-In-Weapons-Systems (CIWS). Defense may also be provided by another ship. The Navy is addressing how it will defend the Surveillance and Track BMD ships. Continued improvements through Block 2004 will restore much of the self-defense capability of the Aegis BMD ships. With regard to track inaccuracy, we cannot as yet say we can provide data accurate enough to prosecute an intercept using a GMD interceptor. However, our results are encouraging and support further analysis, system modification, and testing of the capability to determine whether it can provide cueing and, on certain trajectories, direct support to the interceptor.

EFFECTIVENESS OF BLOCK 04 GMD SYSTEM

9. Senator LEVIN. Secretary Aldridge, you stated at the hearing that the Block 04 GMD system would have effectiveness "in the 90 percent range." What is the basis for this estimate, and why does it differ substantially from the classified probability of engagement success values provided to the General Accounting Office by the Missile Defense Agency earlier this year in the document titled, "BMDS Statement of Goals; Block 04 System Architecture"?

Secretary ALDRIDGE. The BMDS Statement of Goals for the Block 04 System Architecture established system effectiveness values against a range of targets and multiple trajectories. Higher effectiveness values can be expected when multiple defense resources engage a single adversary reentry. Actual effectiveness probabilities of engagement success depend on various environmental factors, the number and types of incoming missiles, defense capabilities available and deployable, and ballistic missile command and control capabilities.

QUESTIONS SUBMITTED BY SENATOR JACK REED

ANOMALY PROBLEM WITH EKV

10. Senator REED. General Kadish, you discovered the track gate anomaly problem with the EKV during IFT–6 in July 2001. Why is it not yet fixed, and when do you plan to fix it?

General KADISH. We first saw the track gate anomaly during IFT–6 and it recurred in all subsequent flight tests. We were able to duplicate the anomaly during ground testing and found that it is likely caused by introduction of electromagnetic interference (EMI) into the EKV through some flight test-unique cabling. These cables are not part of the EKV's operational hardware. Once we determined the probable cause, the offending cables were eliminated and additional shielding added to mitigate the EMI. We were unable to validate the fix on IFT–10 however, because of an unrelated hardware failure involving separation of the EKV from the booster. Our next opportunity will be during IFT–14 in 1Q fiscal year 2004.

We have designed and built a very robust and capable system. It is important to note that we had four consecutive successful intercepts in which the EKV struck and killed the target vehicle despite experiencing track gate anomalies. We have a high confidence that we solved the track gate anomaly problem and look forward to demonstrating the fix on IFT–14.

BUILDING A PERMANENT X-BAND RADAR

11. Senator REED. General Kadish, when do you plan to build a permanent, operational X-band radar to support the deployment of a national missile defense against a North Korean threat?

General KADISH. Because the overall ballistic missile threat is greater than North Korea alone, the BMDS is better served by the positional flexibility afforded by a

Sea Based X-Band Radar (SBX). Additionally, the SBX can support both operational needs and integrated flight tests. For example, while both radars can provide operational coverage of a specific region, the SBX also will support nearly all of the remaining planned flight tests, while a fixed radar could support only one. For these reasons, there currently are no plans to construct a permanent operational XBR.

ICBM ATTACK AGAINST THE UNITED STATES

12. Senator REED. Mr. Christie, in your February assessment of missile defense programs, you stated that the 2004 national missile defense deployment "may have some intrinsic capability to acquire, track, and intercept an inbound ICBM, under the right circumstances." Could you tell me whether you believe an actual ICBM attack against the United States is likely to conform to the "right circumstances" you allude to, and provide a general description of what the "right circumstances" are?

Mr. CHRISTIE. The test bed elements are being built using technology specifically designed to conduct ballistic missile defense missions. It is being integrated by government organizations and industry teams familiar with the mission and the technical challenges. However, it will not be possible to demonstrate defensive capability through testing that fully replicates the threat by the time the fielding decision is made. The test bed will have some intrinsic, yet unknown capabilities to defend against a limited attack. The right circumstances that I refer to in my report are those situations where we would expect the test bed capabilities to be most effective. While the specific circumstances are classified, they generally relate to timing, intelligence data, direction of attack, and the threat missile and associated countermeasures.

FIXING THE GMD

13. Senator REED. Mr. Christie, your most recent report to Congress stated that "the GMD [national missile defense] element has yet to demonstrate significant operational capability" because "the GMD test program in fiscal year 2002 has suffered from . . . test infrastructure limitations" such as "lack of a realistically placed mid-course sensor" and a "fixed intercept point." Which of these problems will be fixed by September 2004, which is the deployment date the administration has set for national missile defense? Is it safe to say that until those problems are fixed, it will be impossible to demonstrate "significant operational capability?"

Mr. CHRISTIE. If the test bed construction proceeds as scheduled, the constraint of a fixed intercept point will be corrected by September 2004. A realistically placed mid-course sensor for testing will require the completion of the sea-based X-band radar, currently scheduled for the end of calendar year 2005. It should be noted that the Cobra Dane radar at Shemya is a realistically placed mid-course sensor for a defensive mission, but is not easily included in testing due to its fixed orientation. We will not have performed sophisticated discrimination testing, so EKV and radar discrimination capability will be unknown. The only way to test the full system in a variety of operationally realistic configurations is to build the test bed. Until the test bed is complete, operational capability will have to be assessed based on the performance of the system and its elements in more constrained encounters.

COST ESTIMATE FOR MISSILE DEFENSE PROGRAMS

14. Senator REED. Secretary Aldridge, the Fiscal Year 2002 National Defense Authorization Act required any missile defense program in the "engineering and manufacturing development" phase to provide the estimated costs for the life of the program. This law defined "engineering and manufacturing development" as that phase which:

1. Translates the most promising design approach into a producible design;
2. Validates the manufacturing process; and
3. Demonstrates system capabilities through testing.

The administration has decided to deploy ground-based national missile defense and sea-based theater missile defense systems just 18 months from now. This surely places these systems well beyond the "engineering and manufacturing development" phase right now. When do you intend to provide Congress with life cycle cost estimates for these programs?

Secretary ALDRIDGE. Ballistic Missile Defense System (BMDS) is not a program in engineering and manufacturing development. The President's decision to field an

initial capability in 2004 has not changed the status of BMDS. The BMDS capabilities planned for Block 04 will use developmental test articles designed to work together for an initial layered missile defense capability.

EFFECTIVENESS OF CURRENT MISSILE DEFENSE SYSTEM

15. Senator REED. Mr. Christie, do you believe the missile defense systems the administration has decided to field in 2004 have been proven to be operationally suitable, effective, reliable, and supportable in the field?

Mr. CHRISTIE. The two systems that may be fielded in 2004 are the Aegis BMD system and the Block 2004 test bed, which consists of elements of the GMD system. Both the Aegis and GMD program have demonstrated some limited capability consistent with the mission of defending against a limited ballistic missile attack. Operational suitability and effectiveness are typically assessed based on a systems performance in operational testing. Prior to September 2004 neither system will have undergone sufficient testing to determine their suitability and effectiveness. As I testified, the test bed will provide the opportunity to acquire significant information on battle management, command, control, communications, safety, reliability, maintainability, and logistics supportability of the missile/silo/command center complex. It can also be used for operator training and for developing tactics, techniques, and procedures for employing the test bed. Once the test bed is deployed, it will be used to execute the flight tests.

GMD TESTING

16. Senator REED. General Kadish, when do you plan to test the GMD system against simple, realistic decoys that mimic the RV? When will the system be tested against tumbling RVs together with simple, tumbling RV-shaped balloons (please provide a classified answer, if required)?

General KADISH. [Deleted.]

QUESTIONS SUBMITTED BY SENATOR BILL NELSON

OPERATIONAL SYSTEM

17. Senator BILL NELSON. General Kadish, the Missile Defense Agency plans some 16 more major flight tests of the GMD system, and many more major ground tests. Once the system is fielded in 2004, do you plan to take the operational system offline for this testing?

General KADISH. It will be possible to test the system while it is on alert providing an initial defensive operations capability. It will be critical to correctly time the testing, and MDA has already begun discussions with STRATCOM and NORTHCOM in order to address this issue.

MID-COURSE MISSILE DEFENSE SYSTEM

18. Senator BILL NELSON. General Kadish, since the President's decision to deploy the ground-based mid-course missile defense system in Alaska by the end of fiscal year 2004, three intercept flight tests have been canceled. During the hearing, you stated that one reason why they were canceled is that the tests would "repeat basically what we already knew." Does this mean that the three flight tests would have been no more complex than the previous four flight tests, all of which have been very similar?

General KADISH. MDA will continuously re-evaluate its test program and adjust to meet evolving verifications needs. The decision to remove 1FT–11, –12, and –16 from the flight test plan was made prior to the President's announcement to proceed with fielding initial defensive operations (IDO) capabilities. Its important to note that since that time, MDA renamed Radar Characterization Flight (RCF)–2 to IFT–16A.

MDA has long said that it will adjust its programs and schedules based on successes and failures. It would be fiscally irresponsible—while adding little to the current pool of data—to conduct another flight test with similar testing configuration and component versions that have been utilized and tested in five consecutive GMD flight tests (during which we conducted four successful targets engagements). Therefore, MDA decided to reprioritize the tests and concentrate on the most immature component of the GMD element—the booster—and conduct five critical booster test

flights in fiscal year 2003, while continuing to develop and construct the initial GMD parts of the BMDS test bed and achieve initial operations capability by 2004.

With regard to IFT–16A: RCF–2 has been redesignated as IFT–16A and rescoped as a system-level test involving a simulated intercept. IFT–16A will specifically exercise the GMD element, especially the newly upgraded Beale Upgraded Early Warning Radar (UEWR). IFT–16A, currently scheduled for 4Q fiscal year 2004, is accelerated to support GMD system assessment prior to fielding initial defensive capabilities.

19. Senator BILL NELSON. General Kadish, when do you plan to increase test complexity to include targets with signatures, countermeasures, and flight dynamics more closely matching the threat?

General KADISH. GMD flight test complexity continuously increases as additional functionalities are added. Target signatures, countermeasures, and flight dynamics are in concert with the current threat estimates and the Adversary Capability Document.

IFT–10

20. Senator BILL NELSON. General Kadish, under the previous administration's plan for NMD, IFT–10 would have included a relatively realistic target suite. Could you please compare the original plan for flight tests with the current plan, and explain the reason for any differences?

General KADISH. IFT–10 was originally planned under a different set of assumptions than the current BMDS program. The original purpose of IFT–10 was to assess the capability of the NMD system against a relatively realistic re-entry vehicle (RV) and target suite. There are two primary differences between the planned and the completed IFT–10 mission: (1) Two additional objects were added to the target suite, and (2) the mission was conducted at night. The two additional objects were added to the target suite to increase the complexity of the intercept. The mission was conducted at night to assess the systems performance in a new flight test environment.

GMD INTERCEPTOR TESTING

21. Senator BILL NELSON. General Kadish, the GMD interceptor is supposed to get in-flight targeting update messages to steer it towards the target. I understand that you have not yet conducted a test where in-flight target updates were actually used to change the course of the interceptor. When is this type of test planned?

General KADISH. In IFT–15 we plan to commit the interceptor using sensor track data external to GMD. This will require an In-Flight Target Update (IFTU) based on GMD sensor data to further refine the intercept point.

22. Senator BILL NELSON. General Kadish, should we proceed with deployment of the GMD system if we have not yet completed a successful test that includes aiming the interceptor with in-flight target updates?

General KADISH. We have exercised the IFTU process during previous successful IFTs, and plan to stress this process even more so during IFT–15.

BLOCK 04 SYSTEM

23. Senator BILL NELSON. General Kadish, during the hearing, you stated that the operational, fielded GMD system would require targeting data to be loaded into the interceptor in advance of the intercept, just as in the previously completed flight tests. For the Block 04 operational system, how long before launch does such target data need to be loaded and what information needs to be included in the data load (please provide technical details). Can we expect we will have that information in real time in the event of a hostile missile launch against the United States?

General KADISH. Targeting data can be loaded into the interceptor immediately prior to launching the interceptor.

The interceptor requires the following targeting data to be loaded:

- The predicted time and location in space where the intercept will occur.
- The range at which the interceptor can expect to 'see' the target.
- Infrared and visual characteristics of the target that will enable the interceptor to discriminate the target from other nearby objects, e.g., decoys.

In addition to the above targeting data, the interceptor also loads before launch:

• Celestial coordinates of the stars that the interceptor will use for navigation.
• The times that communications events are scheduled to occur to/from the ground.

The Block 2004 operational system will have hostile missile launch early warning and cueing from space-based infrared satellites. The predicted time and location in space where the intercept will occur is calculated in real-time from data provided by tracking radars (i.e., Cobra Dane, Upgraded Early Warning Radars, the Navy's Aegis cruisers and destroyers, and the Sea-Based X-band radar). Based on this real-time information, targeting data is selected from a database and uploaded to the interceptor prior to launch.

DEPLOYMENT OF NATIONAL MISSILE DEFENSE SYSTEM IN ALASKA

24. Senator BILL NELSON. Secretary Crouch, will the President's planned deployment of the national missile defense system in Alaska go ahead by the end of fiscal year 2004 regardless of the actual readiness of the system or could that time line be adjusted to accommodate additional necessary tests and preparations to achieve a working system?

Secretary CROUCH. In December 2002 the President directed the Department of Defense to build on the missile defense test bed and begin deployment of an initial set of missile defense capabilities in 2004 and 2005. These capabilities will serve as the starting point for the evolutionary improvement of our missile defense capabilities, which will evolve as technology and the threat develop. Additionally, over the last 2 years we have conducted a successful flight testing program which has given DOD the confidence to proceed with the deployment of this initial set of capabilities. These capabilities will of course continue to evolve and improve over time based on technical progress and our continued testing program.

SPACE-BASED WEAPONS

25. Senator BILL NELSON. Secretary Crouch, if the administration launches space-based weapons such as the space-based boost phase interceptor test satellites, is it administration policy that such satellites should be capable of being removed from space after they are launched?

Secretary CROUCH. The U.S. has made no decision to deploy space-based weapons. Therefore, statements on operational issues associated with deployment of such weapons would be premature at this time.

RADARS IN THE U.K.

26. Senator BILL NELSON. Secretary Crouch, when does the U.S. plan to upgrade the radars in the U.K. and Greenland for missile defense, and how much funding will be required to protect the upgraded radars and the local inhabitants from potential terrorist strikes on those radars?

Secretary CROUCH. The United Kingdom gave the U.S. permission to proceed with the upgrade of the Fylingdales radar in February 2003. The upgrade is currently scheduled to be completed by late–2005. Denmark is willing to provide us permission to upgrade the Thule radar but also wants to update the 1951 Defense of Greenland Agreement at the same time. If we are eventually allowed to upgrade the radar, the plan is to have the upgrade completed by mid-2006. We don't anticipate any additional funding will be required to augment force protection capabilities to protect these radars.

QUESTIONS SUBMITTED BY SENATOR HILLARY RODHAM CLINTON

LAYERED DEFENSE

27. Senator CLINTON. General Kadish, as I understand it, the missile defense program is designed to develop a "layered defense" capable of engaging all classes and ranges of ballistic missile threats. It is designed to attack missiles in all phases of flight including the boost phase (the part of the missile's flight from launch until it stops accelerating under its own power), the mid-course phase (where the missile has stopped thrusting but is gliding under its own power), and the terminal phase (where the missile falls back into the atmosphere). As you have noted, the initial deployment of a ballistic defense system is slated to take place in 2004 in Fort Gree-

ley, Alaska. In your prepared testimony, you state that the President's decision to deploy the system "recognizes that we will not be fielding the perfect system at the outset." Will the system put in place by 2004 be able to target missiles in each phase of launch?

General KADISH. The system in place by 2004 will be able to target missiles in certain midcourse and terminal phases. Capabilities to target missiles in the boost phase will be developed in Block 2006 with kinetic intercept of boost phase included in the 2008 development block. Boost phase fielding decisions have not yet been made.

MISSILE TESTING AGAINST COUNTERMEASURES

28. Senator CLINTON. General Kadish and Mr. Christie, Missile Defense Agency documents acknowledge that during the mid-course phase, there is a greater opportunity to deploy countermeasures against a defensive system. These countermeasures include readily available technology such as separating reentry vehicles, radar absorbing material, booster fragmentation, low power jammers, chaff, and even simple balloon decoys. Has there been any testing of the ability of the missile defense system to respond to these countermeasures? What has been the result?

General KADISH. Countermeasures exercised to date in the GMD program have consisted of balloon decoys. Incremental changes in complexity have been achieved by varying the type and number. In all tests to date, the system has been able to identify and intercept the reentry vehicle (RV) in the presence of countermeasures. In the near term, future tests will be characterized by a transition to more complex penetration aids (penaids) later in the test program. The details of these future penaids and tests are classified.

Aegis BMD program has collected data while participating in flight tests where countermeasures were present.

Mr. CHRISTIE. Yes, there has been both ground and flight testing against countermeasures. MDA has a classified program that is investigating the feasibility and effectiveness of various types of countermeasures in laboratory environments and using modeling and simulation. The data from these activities are used to predict expected GMD system performance. System performance against some of the postulated countermeasures can be adequately evaluated using hardware-in-the-loop simulation; others will require flight-testing. To date, flight-testing has included balloon decoys. As the test bed matures, flight tests plans are to include more sophisticated countermeasures.

MISSILE DEFENSE SYSTEM AND NORTH KOREA'S CAPABILITIES

29. Senator CLINTON. General Kadish and Mr. Christie, ostensibly, the decision to deploy a missile defense system by 2004 is to defend the U.S. against a possible missile attack by North Korea. Will the system in place by 2004 be able to defend against North Korean missiles if they are equipped with countermeasures?

General KADISH. [Deleted.]

Mr. CHRISTIE. The test bed may have some inherent capability against ballistic missiles, even with simple countermeasures, but it will not be demonstrated in 2004. The test bed elements are being built using technology specifically designed to conduct ballistic missile defense missions. It is being integrated by government organizations and industry teams familiar with the mission and the technical challenges. However, it will not be possible to demonstrate defensive capability through testing that fully replicates the threat by the time the fielding decision is made.

30. Senator CLINTON. General Kadish and Mr. Christie, do we know if the North Koreans are researching countermeasures technology for their missile program?

General KADISH. As an acquisition agency, MDA depends upon DOD intelligence agencies to assess specific adversary current and future capabilities and research efforts. However, MDA's research and capability based development approach allows for exploration of the full range of known countermeasures and counter-countermeasures without requiring precise intelligence information related to each adversary.

Mr. CHRISTIE. I think it is safe to assume that North Korea does have some type of a countermeasures research program. We do not know what North Korea is doing with countermeasures, but it is possible that the Missile Defense Agency or the Defense Intelligence Agency could provide some insight into North Korea's countermeasure research activities.

BOOST PHASE MISSILE

31. Senator CLINTON. General Kadish and Secretary Crouch, the boost phase missile defense approach is the one that seems the least affected by possible countermeasures. Given that the location of North Korea and Iran—the most likely threats of a ballistic missile threat—are such that a boost-phase intercept system is technically feasible, how are boost phase interceptors incorporated into your missile defense plan?

General KADISH. The boost-phase interceptors are incorporated into the layered BMDS by first providing a terrestrial kinetic energy interceptor capability against boost/ascent targets with a ground mobile launcher in Block 2008. In Block 2010 plans are to sea-base this capability to provide additional geographic flexibility. We plan further evolution of this capability in Block 2012 by expanding the interceptor capability to counter targets in mid-course. MDA also plans to initiate a parallel space-based boost interceptor development activity starting in fiscal year 2004.

Secretary CROUCH. Development and testing of boost-phase interceptors is an important element of the Ballistic Missile Defense System. We are developing directed energy and kinetic energy boost phase intercept capabilities to create a defense layer near the hostile missile's launch point. We require quick reaction times, high confidence decisionmaking, and redundant engagement capabilities to counter ballistic missiles in this phase. The most mature of the boost phase systems is the Airborne Laser (ABL). The ABL is currently under development and is being designed to acquire, track, and kill ballistic missiles in the boost phase using speed-of-light technology. The first shoot down test of ABL is scheduled for fiscal year 2005. We are also developing a terrestrial kinetic energy boost interceptor, and have requested from Congress funds for a test program to determine the feasibility of intercepting missiles during the boost and ascent phase from space.

[Whereupon, at 12:55 p.m., the committee adjourned.]

DEPARTMENT OF DEFENSE AUTHORIZATION FOR APPROPRIATIONS FOR FISCAL YEAR 2004

THURSDAY, MARCH 20, 2003

U.S. SENATE,
COMMITTEE ON ARMED SERVICES,
Washington, DC.

ATOMIC ENERGY DEFENSE ACTIVITIES OF THE DEPARTMENT OF ENERGY

The committee met, pursuant to notice, at 9:45 a.m., in room SH–216, Hart Senate Office Building, Senator John Warner (chairman) presiding.

Committee members present: Senators Warner, McCain, Inhofe, Allard, Sessions, Chambliss, Graham, Cornyn, Levin, Akaka, and Pryor.

Committee staff member present: Judith A. Ansley, staff director.

Majority staff members present: L. David Cherington, counsel; Brian R. Green, professional staff member; Mary Alice A. Hayward, professional staff member; and Ambrose R. Hock, professional staff member.

Minority staff members present: Madelyn R. Creedon, minority counsel; and Richard W. Fieldhouse, professional staff member.

Staff assistants present: Andrew W. Florell, Jennifer Key, and Sara R. Mareno.

Committee members' assistants present: Christopher J. Paul, assistant to Senator McCain; James Beauchamp, assistant to Senator Roberts; Douglas Flanders, assistant to Senator Allard; Arch Galloway II, assistant to Senator Sessions; D'Arcy Grisier, assistant to Senator Ensign; Clyde A. Taylor IV, assistant to Senator Chambliss; Aleix Jarvis, assistant to Senator Graham; Russell J. Thomasson, assistant to Senator Cornyn; Mieke Y. Eoyang, assistant to Senator Kennedy; Elizabeth King, assistant to Senator Reed; Davelyn Noelani Kalipi and Richard Kessler, assistants to Senator Akaka; William K. Sutey and Peter A. Contostavlos, assistants to Senator Bill Nelson; Andrew Shapiro, assistant to Senator Clinton; and Terri Glaze, assistant to Senator Pryor.

OPENING STATEMENT OF SENATOR JOHN WARNER, CHAIRMAN

Chairman WARNER. The committee meets this morning to receive testimony from Secretary of Energy Abraham, a very dear and valued colleague of this institution. He will present the posture of the

defense-related activities of the Department of Energy, as well as the President's defense budget request for fiscal year 2004 and the future years defense program. We welcome our witness this morning.

This is an important annual posture hearing for this committee. This committee has jurisdiction over approximately two-thirds of the Department of Energy's budget, the parts of the budget related to defense or former defense missions.

The fiscal year 2004 budget request for the defense related missions of the Department of Energy (DOE) is $16.6 billion, a 4-percent real increase over the 2003 appropriated level.

The budget request also contains a number of initiatives which focus on the future of our nuclear deterrent, including the repeal of the ban on low-yield nuclear weapons research, a transition to an 18-month underground nuclear test readiness posture, and a new initiative to reconstitute an advanced concept program which would promote concept and feasibility studies at the national nuclear weapons laboratories.

I will waive further reading so we can proceed with this. All of us have a full agenda, as does the Secretary.

I would like to submit the rest of my statement for the record.

[The prepared statement of Senator Warner follows:]

PREPARED STATEMENT BY SENATOR JOHN WARNER

The committee meets this morning to receive testimony from Secretary of Energy Abraham, on the posture of the defense-related activities of the Department of Energy, as well as on the President's defense budget request for fiscal year 2004 and the future years defense program. I welcome our distinguished witness and former colleague back before the committee.

This is an important, annual posture hearing for this committee. This committee has jurisdiction over approximately two-thirds of the Department of Energy's budget—the parts of the budget related to defense or former defense missions.

The fiscal year 2004 budget request for the defense-related missions of DOE is $16.6 billion, a 4-percent real increase over the fiscal year 2003 appropriated level. The budget request also contains a number of initiatives which focus on the future of our nuclear deterrent, including a repeal of the ban on low-yield nuclear weapons research, a transition to an 18-month underground nuclear test readiness posture, and a new initiative to reconstitute an "advance concepts" program, which would promote concept and feasibility studies at the national nuclear weapons laboratories where upon scientific discovery can thrive.

The U.S. nuclear weapons stockpile was designed and manufactured to deter and defeat targets in the former Soviet Union. As such, it worked very effectively as a deterrent for over 50 years. While the United States needs to continue to maintain its deterrent capability, we must also address the new threats posed by rogue nations and transnational groups intent on acquiring and using weapons of mass destruction.

The Nuclear Posture Review (NPR), released in December 2001, established a new defense strategy—a strategy which included a plan to reduce our reliance on nuclear weapons. The NPR provided the vision for realigning our Nation's strategic defenses within a new triad, which includes offensive strike systems, both nuclear and nonnuclear; defenses, both active and passive; and a revitalized defense infrastructure to provide new capabilities in a timely fashion to meet emerging threats. The "advanced concepts" initiative is part of this triad.

Ensuring that our scientists and engineers are challenged and are free to think, research, discover, innovate, and create is imperative. That was the type of environment in which the nuclear weapons program was born with the Manhattan Project. We must make sure such freedom to research and develop is present in our national weapons laboratories if we are to deter and, if necessary, counter 21st century threats.

I have long been concerned about the congressionally-mandated prohibition on research on precision low-yield nuclear weapons. The budget request specifically requests a repeal of this ban on low-yield nuclear weapons research. In their budget

request, the administration found the "legislation has negatively affected U.S. Government efforts to support the national strategy to counter WMD and undercuts efforts that could strengthen our ability to deter, or respond to, new or emerging threats."

While there may not be a current military requirement for a low-yield nuclear weapon, that does not mean the research is not important or valid, or that there will not be a future military requirement for such a weapon. In fact, the research could greatly benefit our scientists and their understanding of nuclear weapons, to include a better understanding of what our potential adversaries may be able to produce. Additionally, such research would provide valuable experience for new scientists and engineers, especially as test-experienced scientists continue to reach retirement age.

I have also been concerned in recent years with our test readiness posture. The science-based Stockpile Stewardship Program is focused on maintaining the existing nuclear weapons stockpile in such a manner that it can be certified as safe, secure, and reliable, without the need for underground nuclear testing. This is quite a challenge, particularly as the average age of weapons in the stockpile has grown beyond 20 years.

While the science-based Stockpile Stewardship Program seems to have been successful thus far in enabling DOE to annually certify the safety, security, and reliability of the stockpile, if the Stockpile Stewardship Program reveals a problem across a weapon-type in the stockpile, actual underground nuclear testing may be the only way to resolve the problem. Today, if such a problem were discovered, it would take 3 years for DOE to be ready to conduct an actual test to help resolve the problem. This timeline must be changed. Ensuring that we have an enhanced test readiness posture is vital. The 18-month readiness posture proposed by the administration does not mean that we will conduct a test, but instead that we will be ready to do so should circumstances arise which require testing.

The President of the United States should have the broadest range of capabilities available to respond to adversaries who threaten the safety and security of the United States. We should not place artificial limits on the intellectual capabilities of our gifted scientists. As threats emerge which cannot be deterred or destroyed with conventional weapons, our President must have other options available to protect the citizens of the United States, our interests and our allies. This has been the policy of the United States for almost 60 years. The President should not be limited by our 20th century nuclear weapons which were designed to deter or defeat 20th century threats. The President should have a wide array of conventional and nuclear weapons to deter or, if necessary, defeat 21st century targets which continue to emerge.

Secretary Abraham, thank you for your service to our Nation. We look forward to your testimony.

Senator Levin?

Senator LEVIN. Thank you, Mr. Chairman. I think I will also follow that course of action, given the events that take up so much of everybody's time here and simply put my statement in the record.

[The prepared statement of Senator Levin follows:]

PREPARED STATEMENT BY SENATOR CARL LEVIN

Good morning, Mr. Secretary. I join Senator Warner in welcoming you to the committee this morning to discuss the Department of Energy's budget request for fiscal year 2004.

The Department of Energy's total budget request for fiscal year 2004 is $23.4 billion, of which $16.6 billion, or about two-thirds of the overall DOE budget, is for defense-funded activities and, thus, under the jurisdiction of this committee. These defense-funded activities include the environmental cleanup program, the nuclear nonproliferation programs, the nuclear weapons activities, and the naval reactors development program. The National Nuclear Security Administration is responsible for the nonproliferation programs, the nuclear weapons program, and the naval reactors program.

NONPROLIFERATION PROGRAMS

Earlier this month, the Department of Energy, Russia, and the International Atomic Energy Agency (IAEA) co-sponsored an international conference on the protection of radiological devices and other nuclear and radiological materials that

could possibly be used in a radiological dispersal device—a so-called "dirty bomb." I understand that this conference was well attended and successfully highlighted the need to provide greater security for much of this material. Secretary Abraham, I am interested in your views on this subject and what additional actions the DOE and other U.S. Government agencies are taking to provide the necessary additional security for these and other materials.

After several years of delays the DOE nonproliferation programs appear to be back on track. While DOE, the Department of Defense, and the State Department have improved the security of significant quantities of weapons grade fissile materials and nuclear weapons, in the 10 years of the Nunn-Lugar program, much remains to be done. About 37 percent of the short-term upgrades are in place, but only about 17 percent of the comprehensive security-measures are in place.

Earlier this month, the Nuclear Threat Initiative and the John F. Kennedy School of Government released a new report, "Controlling Nuclear Warheads and Materials, A Report Card and Action Plan." In a forward to this report, Senator Lugar and former Senator Sam Nunn wrote: "Preventing terrorism with weapons of mass destruction must become the central organizing security principle of the 21st century. It is the only threat whose danger is dire and diffuse enough to unify all nations, and it will take the unity of all nations to meet that threat." They remain concerned that one of "the biggest obstacles to action is overcoming the denial that such an attack could occur and the paralysis that comes from believing the job is too massive and too overwhelming to be done. . . We must finally face the truth about the scale of the threat and build a partnership of nations with the methods and means to respond."

The report itself makes several key findings with respect to the threat and the actions that need to be taken to address the threat. Significant emphasis is placed on the importance of securing materials at the source. "The most effective approach to reducing the risk is a multi-layered defense to block each step on the terrorist pathway to the bomb. But securing nuclear weapons and materials at their source is the single most critical layer of this defense, where actions that can be taken now will do the most to reduce the risk of terrorists acquiring nuclear weapons and material, at the least cost." While we have put in place short-term upgrades for 37 percent of the material, that means that 63 percent of the material has had no security upgrades. Secretary Abraham, I know that you share the concerns about the security of the materials, and I look forward to working with you to address promptly this threat.

NUCLEAR WEAPONS

Protecting and securing nuclear weapons and materials is just one aspect of a successful nonproliferation program. Coordinating nuclear weapons policy and nonproliferation policy is also essential.

Over the course of the past 2 years, the administration has taken several actions that would indicate more emphasis and importance is being placed on nuclear weapons. Nuclear proliferation and the nuclear weapons policies and actions of the United States are inextricably connected, and we must be conscious of that interaction. I look forward to discussing this issue with you as well.

ENVIRONMENTAL CLEANUP

The Department has been making good progress on the cleanup of the nuclear weapons complex. As I understand it, you are moving to accelerate the cleanup effort even more. Further acceleration will require close cooperation with the communities, the States and the Environmental Protection Agency, as well as some additional funding. This is certainly a significant challenge. I look forward to hearing your plans for accelerated cleanup and how Congress could be of help. It is a pleasure to have you back before the committee.

Thank you, Senator Warner.

Chairman WARNER. Thank you very much, Senator.

Senator McCain, do you have any opening comment?

Senator MCCAIN. No, thank you.

Chairman WARNER. Fine. I would also like to submit for the record the statement of Senator Roberts.

[The prepared statement of Senator Roberts follows:]

PREPARED STATEMENT BY SENATOR PAT ROBERTS

Thank you Mr. Chairman. I, too, want to offer my welcome to our distinguished witness today.

First, I want to commend you, Secretary Abraham, and the administration, for presenting Congress with a fiscal year 2004 budget request for the DOE nonproliferation programs that is the highest ever in the history of these programs. This shows the importance the President has placed on these nonproliferation programs. Moreover, this budget is 30 percent more than what was requested last year. This increase alone is unprecedented.

As Chairman of the Subcommittee on Emerging Threats and Capabilities with oversight responsibilities for both the DOE and DOD nonproliferation programs, I am pleased that these programs are receiving Presidential level support and cooperation.

The proliferation of weapons of mass destruction is getting worse, not better. Despite years of nonproliferation treaties and regimes designed to curb and control such proliferation, today's reality is that more nations and non-state actors have these capabilities, despite these multilateral efforts. We must recognize this fact and protect against it to the best of our abilities. The emerging threats that this committee identified in past years are the threats of today.

For this reason, it is incumbent upon Congress to ensure that these nonproliferation programs succeed. We must be certain that these programs' goals are being met by ensuring that Congress has a way of measuring program progress and achievements. By providing the resources and the necessary oversight, Congress must remain vigilant and deliver what is promised to the American people.

I applaud your diligent efforts in moving these nonproliferation programs forward to meet the threats posed by proliferating weapons of mass destruction around the world. Thank you for your remarks today and for your contributions to U.S. national security.

Chairman WARNER. Mr. Secretary?

STATEMENT OF HON. SPENCER ABRAHAM, SECRETARY OF ENERGY

Secretary ABRAHAM. Mr. Chairman, thank you. I thank the ranking member and my former colleague from Michigan, Senator McCain, and others on the committee. Obviously, we meet as many international events are taking place in the world today that bring us here under unique circumstances, ones I know we all join in our support of the combat teams in the field.

Our Department obviously plays a part in the support of our national security. Literally all of the Department's activities, from our defense programs to the many programs we have to promote energy security and scientific leadership, address national security concerns, but today I just will make a brief opening statement and submit for the record a longer statement that outlines our Department's budget.

Just a few top-line points. Of our $23.4 billion request for the fiscal year 2004 budget, 70 percent, or $16.6 billion, is for national security programs. Of that amount, $8.8 billion will support the activities of the National Nuclear Security Administration (NNSA), and $7.2 billion will fund our environmental cleanup programs, with the remaining $600 million devoted to other defense activities.

NNSA has a huge responsibility for maintaining our Nation's nuclear stockpile, rebuilding the capabilities of our defense complex, preventing the spread of nuclear weapons and materials, and continuing our strong naval reactors program.

Because of our successful efforts in these areas over the past 2 years, the Department has been entrusted with added responsibilities and the means to execute them more effectively. Our 2004 budget submission of $8.8 billion for defense programs and NNSA

includes a $925 million increase over last year to carry out the defense program responsibilities and our nonproliferation programs.

Our nuclear capability continues to be a key strategic component of our Nation's security posture, and certifying to the President the safety and the reliability of our stockpile is among the highest, if not the highest, responsibilities I have as the Secretary of Energy.

Our challenge today is large. It is complex. We must maintain the safety, security, and reliability, as well as the effectiveness of our aging nuclear weapons stockpile without resort to underground testing. Our budget proposes $6.4 billion in spending for stockpile stewardship and the rebuilding of our defense complex, a $532 million increase over the fiscal year 2003 budget proposal.

We will use our increased funding to continue advancing the scientific and the manufacturing capabilities we need over the long term. Last fall we awarded a contract to build the two largest supercomputers in the world to help us ensure our long-term ability to certify the safety, reliability, and the effectiveness of the weapons in our stockpile.

The Department will also continue to refurbish aging weapons under our stockpile life extension program to ensure that they remain safe and effective. We will continue to dismantle warheads and bombs which are retired from the stockpile, and we will continue to make progress toward restoring the capability to manufacture and certify war-reserve plutonium pits for the stockpile.

Finally, in order to carry out all these activities, the budget funds programs that will allow our Department to continue to restore, rebuild, and revitalize the physical infrastructure of the weapons complex. While we work to keep our stockpile ready, safe, and secure, we must at the same time expand our already productive efforts to prevent the spread of nuclear weapons and materials. During the past 2 years, our Department has significantly improved control of Russian nuclear materials. We put the plutonium disposition program on a sound footing, revitalized the program to shut down Russian plutonium-producing reactors, and accelerated the program to protect Russian nuclear materials and Russian Navy nuclear weapons. We have enhanced our ability to detect weapons of mass destruction, including nuclear, chemical, and biological systems and other terrorist threats, and we have reduced the risks of accidents in nuclear fuel cycle facilities worldwide.

As a result of the unprecedented levels of cooperation reached by President Bush and President Putin to control the proliferation of nuclear materials, Russia and the United States have agreed to complete the work of protecting some 600 tons of Russian fissile material by 2008, a full 2 years earlier than expected.

In addition, the United States, Russia, and the International Atomic Energy Agency (IAEA) this year will intensify international cooperation to keep radioactive materials, the kind that could be used in the construction of so-called dirty bombs, out of the hands of terrorists. That work took a large step forward in Vienna last week when we co-chaired an international conference on ways nations can work individually and collectively to account for and secure radioactive sources. Representatives from over 120 countries attended the conference, which we co-chaired with Russia and the IAEA.

To carry out our complex nonproliferation work, we have increased our total nonproliferation budget to more than $1.3 billion, a 30-percent increase over last year. That budget will make it possible for the Department to increase our international monitoring visits to sensitive nuclear sites by one-third, to boost our contributions to international safeguards work carried out through the IAEA and other cooperative programs by 17 percent over 2003 funding.

We will also continue to move ahead with work related to plutonium disposition facilities in both the United States and Russia to eliminate excess weapons plutonium and accelerate our program for the elimination of Russian highly enriched uranium.

Our longstanding naval reactors program is responsible for the safe operation of the reactor plants that power 40 percent of our Navy's combatant ships, as well as for new nuclear propulsion plants. Our budget request of $768 million for naval reactors, an increase over the fiscal year 2003 appropriation, will allow for the development and deployment later in this decade of a new design reactor core to meet the requirements of longer, harder ship deployments.

As we carry out our national defense duties, our responsibilities also extend to cleaning up the legacy of a half of a century of nuclear defense work here at home. Our budget submission of $7.2 billion for environmental management is the highest amount ever requested for these programs. These funds will allow us to continue with our reformed accelerated cleanup effort which will increase or accelerate completion of environmental cleanup programs by 35 years, reduce risk to the public and the environment, and save taxpayers more than $50 billion in program costs.

Mr. Chairman, I could obviously go on at great length, but in the interest of the events of today and the committee's desire, I know, to complete its work swiftly today, I will submit the rest of my statement for the record and obviously look forward to answering the committee's questions. Thank you for having me.

[The prepared statement of Secretary Abraham follows:]

PREPARED STATEMENT BY HON. SPENCER ABRAHAM

INTRODUCTION

Good morning Mr. Chairman and members of the committee. It is a pleasure to be here today to discuss the President's fiscal year 2004 budget request for the Department of Energy (DOE). In doing so, I want to stress the ways this budget is going to help us accomplish our various missions related to defense and the environment.

The President's fiscal year 2004 budget of $23.4 billion for the DOE continues the administration's commitment to ensure national defense and safeguard the Nation's energy security through advances in science and technology, as well as fulfill our obligation as environmental stewards to surrounding communities. While DOE's national policy objectives have not changed, this budget reflects a new approach toward conducting business at the Department of Energy. Reengineering efforts that we began in fiscal year 2002 have taken shape: programmatic activities are better focused to achieve primary mission objectives; budget priorities are set with improved measurable performance criteria; and corporate management initiatives reflect aggressive implementation of the President's Management Agenda.

Of the total fiscal year 2004 budget request of $23.4 billion, approximately 71 percent of the total Department of Energy budget, or $16.6 billion, is for the Department's defense programs within the jurisdiction of this committee. Within the $16.6 billion budget, $8.8 billion is to support activities in the National Nuclear Security Administration, $6.8 billion to fund the environmental cleanup activities, $430 mil-

lion to fund the Defense Nuclear Waste Fund, and $522.7 million to fund Other Defense Activities.

This budget request reflects and addresses the critical challenges we face today and will continue to face in the coming decades. I have charted a course for the Department that emphasizes DOE's critical contributions to our Nation's national security and provides forward-reaching solutions to America's energy problems. These priorities as they relate to this committee's jurisdiction are to:

- meet our responsibilities to maintain the nuclear stockpile;
- expand and make more comprehensive our non-proliferation activities;
- accelerate the environmental cleanup program; and
- build and maintain a stable and effective national defense program to respond to the guidance in the Nuclear Posture Review with special emphasis on revitalizing laboratory and production plant infrastructure.

The fiscal year 2004 budget is focused to deliver on these priorities.

As part of the Department's Strategic Planning process these priorities translate into six overlapping departmental goals that form our core mission of national security. All of the Department's planning and budgeting for fiscal year 2004 drives toward these six goals:

- maintain a safe, secure and reliable nuclear deterrent;
- control nuclear proliferation;
- reduce dependence on energy imports;
- achieve a cleaner, healthier environment;
- improve our energy infrastructure to ensure the reliable delivery of energy; and
- maintain a world class scientific research capability.

Formulation of this year's budget reflects significant management changes occurring within the Department. Guided by the President's Management Agenda and the management reforms I started in fiscal year 2001, and incorporated more fully into the budgeting process in 2002, this budget implements integrated, long-term program planning and performance accountability. The Department is implementing a 5-year programmatic and planning framework to provide an unprecedented opportunity to consider future impacts in determining current year funding priorities. This budget was formulated to deliver measurable results to reach the Department's strategic goals. This achievement is a significant step toward reaching our key goal to focus DOE activities to adhere to the primary mission of national security. By streamlining program activities and management structures, the Department of Energy will more effectively and efficiently manage and produce the results expected by American taxpayers.

PRESIDENT'S MANAGEMENT AGENDA

Rising to the challenge of the President's Management Agenda, the Department is beginning to improve how it manages, budgets, and plans for all programs, projects and activities. By improving management, performance, and accountability, the Department is striving for a level of performance that keeps DOE programs safe, on track, and on budget. A system of scorecards is being used to evaluate the effectiveness of various programs and allocate resources to achieve this end. Performance measures are improving to ensure that they are specific, quantifiable, concise, comprehensive, and relevant to the American taxpayer. Also, in accordance with the President's commitment to an expanded and effective electronic government, DOE is centrally managing information technology investments and other capital assets to reduce waste, increase productivity and provide increased services at lower cost.

Research and Development Investment Criteria

The President's Management Agenda calls for consistent and sufficient evaluation of future research and development (R&D) investments and past performance. In response, the Department developed internal guidance for programs to score their R&D activities against the administration's applied R&D investment criteria. This approach focuses R&D dollars on long-term, potentially high-payoff activities that require Federal involvement to be both successful and achieve public benefit. The Department will continue to work to develop consistent scoring and benefits estimation methods, to permit comparison of applied R&D programs across the Department. The applied R&D scorecard process is an important way the Department is integrating performance into the budget. The scorecard process is in its second year of development. The goal is to develop high analytical justifications for applied research portfolios in future budgets. This will require the development and applica-

tion of a uniform cost and benefit evaluation methodology across programs to allow meaningful program comparisons.

Program Assessment Rating Tool

In addition to the use of R&D investment criteria, the Department implemented a new tool to evaluate the management effectiveness of selected programs. The Program Assessment Rating Tool (PART) was developed by the Office of Management and Budget (OMB) to provide a standardized way to assess the effectiveness of the Federal Government's portfolio of programs. While OMB's objective for fiscal year 2004 was to evaluate 20 percent of each government agency, the Department of Energy reviewed nearly 60 percent of its activities through the PART process. The departmental elements that participated were: Environmental Management; Science; Fossil Energy; Nuclear Energy; Energy Efficiency and Renewable Energy; the Power Marketing Administrations; and the National Nuclear Security Administration.The structured framework of the PART provides a means through which programs can assess their activities differently than through traditional reviews. While some of the programs received less than favorable scores, the information exchange between the Department and OMB proved quite valuable. The current focus is to establish outcome- and output-oriented goals, the successful completion of which will lead to benefits to the public, such as increased national security and energy security, and improved environmental conditions. The Department will incorporate feedback from OMB into the fiscal year 2005 budget and planning process, and will take the necessary steps to continue to improve performance. The results of the reviews are reflected in the Department's fiscal year 2004 budget.

NATIONAL NUCLEAR SECURITY ADMINISTRATION

The Department of Energy, through the National Nuclear Security Administration, preserves U.S. national security by ensuring the safety, security, and reliability of our Nation's nuclear deterrent, working to reduce the global danger from the proliferation of nuclear materials and other weapons of mass destruction, and providing technical expertise in advancing Homeland Security. The fiscal year 2004 budget request for NNSA is $8.8 billion, a $925 million increase above the fiscal year 2003 budget request, and includes:

- Weapons Activities ($6.4 billion)
- Defense Nuclear Nonproliferation ($1.3 billion)
- Naval Reactors ($768 million)
- Office of the NNSA Administrator ($348 million)

The administration's Nuclear Posture Review (NPR) set the current national nuclear weapons policy reflected in the Department's fiscal year 2004 budget request for the National Nuclear Security Administration (NNSA). The NPR calls for the NNSA to maintain the viability of the Nation's nuclear weapons capability without the use of underground testing; develop a stockpile surveillance and engineering base; refurbish and extend the lives of selected warheads; and maintain a science and technology base, including responsive facilities and infrastructure, needed to ensure the safety and reliability of the Nation's nuclear weapon stockpile.

The Department's NNSA has recently implemented a major reorganization that follows the principles of the President's Management Agenda, to improve government through performance and results. The new organizational structure eliminates a layer of management, consolidates offices and administrative functions, and sets NNSA on a course to achieve an almost 20-percent reduction in Federal personnel by the end of fiscal year 2004.

Weapons Activities

One of my most important responsibility as Secretary of Energy is to certify to the President the safety and reliability of our nuclear stockpile. Our nuclear weapons capability protected the Nation and helped us to win the 50-year Cold War. Today it continues to be a key strategic component of our Nation's security posture. Our challenge today is large and complex: we must maintain the safety; security; reliability; and effectiveness of our aging nuclear weapons stockpile without resort to underground testing. We must also provide a manufacturing base for the production of a replacement weapon if the need should arise.

Our fiscal year 2004 budget proposes $6.4 billion for the Weapons Activities program, which also includes funding for safeguards and security for NNSA sites and for rebuilding our national security infrastructure. For the last 7 years, the Stockpile Stewardship Program has allowed the Secretaries of Energy and Defense to certify to the President that (1) the Nation's nuclear weapons stockpile is safe, secure and reliable and (2) that there is no need to resume underground testing.

To ensure that the existing stockpile continues to meet its military requirements, the NNSA also has a comprehensive refurbishment program known as stockpile life extension. It is presently working on four warhead types in the enduring stockpile—the W87, W76, B61, and the W80. This program designs, builds, tests, and installs new subsystems and components thereby extending the operational service life for these warheads for some 30 years.

NNSA is also restoring the full suite of manufacturing capabilities needed to respond to any stockpile contingency.

NNSA is installing an interim pit production capability at Los Alamos. Later this year Los Alamos will deliver a W88 pit that will meet all quality manufacturing requirements for use in the stockpile. This will be the first pit made by the United States since the shutdown of Rocky Flats in 1989. NNSA has begun work on design and siting for a modern pit facility that will be capable of manufacturing all pit types for the current stockpile and any new requirements, should they arise. To complete the materials supply story, NNSA will begin producing new tritium for the stockpile by irradiation of tritium producing rods in a TVA reactor this fall.

We are also investing in the leading edge scientific and engineering tools required to support the stockpile now and into the future. Three areas deserve special mention. First, with the advanced scientific computing initiative (ASCI), NNSA is working with U.S computer manufacturers to acquire the world's fastest and most capable computers to address nuclear weapons performance issues that several years ago were impossible to solve. Second, the Dual Axis Radiographic Hydrotest Facility at Los Alamos is providing "cat-scan-like" images of weapons implosion processes. This test bed provides critical data to validate the ASCI codes. Third, later this year, the world's most powerful laser, the National Ignition Facility, will begin to carry out experiments at the Lawrence Livermore National Laboratory in support of the nuclear weapons stockpile.

As the Nuclear Posture Review highlighted, the threats we face today are dramatically different from those we faced a few years ago. To ensure that future American Presidents have deterrence options to deal with these threats, we have a modest Advanced Concepts program ($21 million) underway. The Robust Nuclear Earth Penetrator (RNEP) will be allocated $15 million. This program will examine whether or not two existing warheads in the stockpile—the B61 and the B83—can be sufficiently hardened through case modifications and other work to allow the weapons to survive penetration into various geologies, with high reliability, before detonating. The remaining funds will be divided between the weapons laboratories for studies of other advanced concepts work.

DOE supports about $1 billion annually for ongoing operation of NNSA facilities at the government-owned, contractor-operated, national laboratories, production plants, and test site. In addition, $273 million is requested in fiscal year 2004 for 8 new construction starts and 12 ongoing construction projects. The Facilities and Infrastructure Recapitalization Program ($265 million) is responsive to the Nuclear Posture Review infrastructure guidance, and is in its third year to restore, rebuild and revitalize the physical infrastructure of the nuclear weapons complex that has deteriorated and is in immediate need of attention. This program is tightly structured to address highest priority needs, to eliminate deferred maintenance requirements, and eliminate excess space in all nuclear weapons complex facilities. Our responsibilities also encompass security for the nuclear weapons complex. In the past year, we have placed the highest priority on addressing urgent, emergent concerns about the safeguards and security posture of our Nation-wide complex of facilities and transportation systems following the events of September 11, 2001. In addition to increasing our protective forces, enhancing training, and upgrading equipment, we will begin a modest R&D effort to try to improve the effectiveness of technologies for physical and cyber security. We also upgraded our emergency response assets, which are available to be deployed in emergencies around the world.

Defense Nuclear Nonproliferation

America's safety must be our paramount concern. Presidents Bush and Putin have agreed to an unprecedented level of bilateral cooperation to control the proliferation of nuclear materials. The President's fiscal year 2004 budget request of $1.3 billion for Defense Nuclear Nonproliferation reflects the administration's full commitment to reducing the global nuclear danger and participating in the Global Partnership to sustain nuclear nonproliferation initiatives in the former Soviet Union. This request supports departmental programs to: (1) enhance U.S. capability to detect nuclear weapons proliferation, (2) prevent and reverse proliferation of weapons of mass destruction (WMD), (3) protect or eliminate weapons and weapons-usable nuclear material and/or infrastructure, and redirect excess foreign weapons expertise to ci-

vilian enterprises, and (4) reduce the risk of accidents in nuclear fuel cycle facilities worldwide.

The fiscal year 2004 funding level for Defense Nuclear Nonproliferation reflects a 30-percent increase over the fiscal year 2003 request of $1 billion. The increase provides for the start of construction of a mixed oxide (MOX) fuel fabrication facility in the U.S. and U.S. efforts to assist Russia with the start of construction of an industrial scale MOX fuel fabrication facility. In addition to MOX construction activities, the request of $657 million for Fissile Material Disposition supports completion of design activities for the pit disassembly and conversion facility and continuation of the U.S. "off-spec" HEU blend-down project.

Additionally, the request includes $30 million to implement a new program to accelerate nuclear materials disposition efforts in support of the 2002 G8 Summit initiatives to purchase Russian highly enriched uranium (HEU) above the amounts in the 1993 U.S./Russia HEU Purchase Agreement. The United States is currently in the process of drafting agreements with Russia for the purchase of highly enriched uranium from Russia to supply selected U.S. research and test reactors and for the purchase of downblended Russian HEU for a low-enriched uranium (LEU) stockpile in Russia.

The fiscal year 2004 request also provides $40 million for the Russian Transition Initiative (RTI) to reduce the migration risk of nuclear and WMD expertise in the former Soviet Union. The RTI partners former Soviet weapons scientists with U.S. industry partners on projects selected for their commercial potential, while also assisting the Russians in downsizing their nuclear weapons complex and opening the closed nuclear cities to commercial ventures. RTI has garnered over $125 million in matching resources from U.S. industry partners, which amounts to $3 in private sector funds for every $2 in U.S. Government funding. In addition, private investment funding has contributed over $90 million to further augment its technology commercialization efforts.

The fiscal year 2004 request also includes $50 million to assist the Russian Federation to cease its production of weapons-grade plutonium by providing replacement power production capacity. In fiscal year 2003, responsibility for the program was transferred from the Department of Defense to the Department of Energy. Agreements were recently signed with the Russian Federation, allowing work to be initialized on this program.

The request includes $204 million to support the research, development, testing, and evaluation of nuclear proliferation detection technologies for agencies responsible for monitoring proliferation and combating terrorism.

A request of $226 million for the International Nuclear Materials Protection, Control, and Accounting (MPC&A) Program will continue to improve the security of weapons-usable nuclear material and weapons in Russia, and secure materials that could be used in radiological dispersion devices (dirty bombs). Specifically, the Department is working to secure approximately 600 metric tons of fissile materials and thousands of warheads. The program provides for security of trucks and railcars transporting nuclear weapons-usable materials and consolidates nuclear material at fewer locations in order to reduce vulnerability from theft and sabotage. In fiscal year 2004, cooperation will expand to include Russian strategic rocket forces.

Additionally, the MPC&A request supports efforts to install radiation detection equipment at borders of Russia and the former Soviet Union in order to prevent nuclear smuggling and illicit trafficking.

The Nonproliferation and International Security request of $102 million supports U.S. efforts to control exports of items and technology that aid in the development of WMD, implement international safeguards in conjunction with the International Atomic Energy Agency, and explore and implement innovative approaches to improve regional security.

In addition, the fiscal year 2004 request includes an increase for development and delivery of tools to meet requirements to detect, understand, and verify dismantlement of clandestine nuclear programs.

Naval Reactors

The Naval Reactors program is responsible for the safe operation of reactor plants in operating nuclear-powered submarines and aircraft carriers constituting 40 percent of the Navy's combatants. It also fulfills the Navy's requirements for new nuclear propulsion plants that meet current and future national defense requirements. The program is beginning development and will deploy, later this decade, a new design reactor core to meet the demands of longer, harder ship deployments. The fiscal year 2004 budget request totals $768 million, an increase of $612 million over the fiscal year 2003 appropriations, and allows Naval Reactors to fund this transitional technology.

ACHIEVE A CLEANER, HEALTHIER ENVIRONMENT

Protecting the environment is compatible with increasing the supply of dependable, domestically produced energy. As President Bush has said, "Sustained economic growth is the solution, not the problem, because a nation that grows its economy is a nation that can afford investments and new technologies." By harnessing the power of American science and technology, we can achieve both energy independence and a cleaner, healthier environment. The fiscal year 2004 budget embodies a commitment to current and future generations of Americans to accelerate risk reduction and cleanup of environmental damage resulting from Cold War nuclear programs, reduce the polluting effects of energy sources, and develop secure energy technology options for the future.

Environmental Management

The total fiscal year 2004 budget request for Environmental Management (EM) activities totals $7.2 billion, approximately 5 percent above the comparable fiscal year 2003 request, to accelerate risk reduction and closure. This is the highest amount ever requested for the EM program. Within this committee's oversight, the Department is requesting $6.8 billion for the EM program, of which $5.8 million is for Defense Site Acceleration Completion and $995 million is for Defense Environmental Services.

The Environmental Management program was created in 1989 to safely manage the cleanup of the environmental legacy from 50 years of nuclear weapons production and nuclear energy research at 114 sites around the country. The scope of the program includes stabilization and disposition of some of the most hazardous materials known. In February 2002, the EM program released a Top-to-Bottom Review, which revealed that process rather than cleanup results had been the basis for performance and cleanup approaches.

Following this review, the EM program committed to devote the next 18 months to developing and implementing several key management reforms that would drive accelerated risk reduction and project completion. We are ahead of schedule. In one year, we have begun developing and implementing four management reforms, which serve as the basis for the EM program's accelerated risk reduction cleanup initiatives. These reforms are:

Acquisition Strategy. We are implementing a strategy that will both increase competition by enlarging the pool of potential contractors competing for our work and increasing the accountability of our contractors to deliver real, meaningful cleanup.

Configuration Control. EM has begun implementing a strict configuration management system that baselines a number of key, critical program elements, such as Performance Management Plans, EM corporate performance measures, and life-cycle costs. Strict configuration control and monitoring of these key elements will facilitate a high confidence level that the goals and direction of the accelerated cleanup initiatives are being met.

Human Capital. This reform strongly supports the President's Management Agenda. EM is building a more robust organizational and performance accountability system that holds each manager and employee accountable for actions and results. Individual performance management is being fully integrated into EM organizational goals. We have completed two phases of senior executive reassignments between both the Field and Headquarters.

New Budget Structure. We have developed and begun implementing a new budget structure, which complements other management reform initiatives by focusing on completion and endpoints, and communicating EM's goals and objectives. The new budget structure clearly identifies scope and resources that directly support the accelerated cleanup and risk reduction mission.

Since the release of the Top-to-Bottom Review, significant progress has been made with respect to these management reforms. In addition, EM has made efforts to identify and implement changes in 10 areas emphasized in the Top-to-Bottom Review that are critical to the success of the program. EM has focused these activities into special projects, each with a complex-wide perspective. Successful execution of these projects is crucial to improving the performance of the program and eliminating many of the barriers that have hindered previous initiatives to accelerate cleanup and reduce life-cycle cost.

In fiscal year 2004, the EM program will continue making progress in implementing management reforms and making changes in the areas emphasized in the Top-to-Bottom Review. The EM fiscal year 2004 budget request has been tailored to meet our mission of accelerated risk reduction and completion. The most impressive aspect of this budget is that it fully reflects each site's new accelerated risk reduction and cleanup strategies. The strategic groundwork has been laid and the EM

program is moving forward. Through the implementation of accelerated cleanup strategies, the EM program anticipates that cleanup will be completed no later than 2035, at least 35 years earlier than originally anticipated and life-cycle savings of greater than $50 billion will be achieved.

Fiscal year 2004 will be a banner year, where significant risk reduction will be achieved. During fiscal year 2004, the EM program will:

- Eliminate 1.3 million gallons of radioactive waste from underground tanks, and permanently close nine underground radioactive waste tanks (two at Savannah River, one at INEEL, and six at Richland).
- Complete stabilization of all remaining plutonium metals, oxides, and residues in EM inventory (at Richland and Savannah River).
- Package 633 metric tons of spent nuclear fuel for safe storage and disposal (cumulative 88 percent of EM's inventory packaged).
- Accelerate transuranic waste shipments to the Waste Isolation Pilot Plant. EM will ship more than 12,000 m^3 of transuranic waste to the Waste Isolation Pilot Plant.
- Complete remediation of 180 formerly contaminated sites (surpassing 50 percent of these sites in the EM inventory).

The fiscal year 2004 budget will allow the EM program to remain focused on the core mission of accelerated risk reduction and project completion.

Legacy Management

The fiscal year 2004 budget realigns program activities that will better support the Department's long-term mission by creating the Office of Legacy Management to manage post-cleanup activities. The Department is requesting $47.5 million in fiscal year 2004 for the Office of Legacy Management to monitor and maintain the integrity of cleanup remedies and administer the Department's post-closure obligations at closed sites. Legacy Management will be the steward of sites cleaned up and closed by DOE and the Army Corps of Engineers, administer activities for post-retirement benefits for former contractor employees and manage long-term contractor liabilities. This restructuring supports the Department's efforts to focus the Environmental Management program, which used to carry these responsibilities, to achieve more cleanup and risk reduction for the American taxpayer. I cannot stress strongly enough that even with the completed remediation and closure of EM sites, the Department will never abandon its responsibilities to the communities. Establishing an Office of Legacy Management will ensure that those concerns and responsibilities are represented by a dedicated office, measured only by their success in meeting the defined needs of those communities and their constituents.

Civilian Radioactive Waste Management

The President's February 2002 recommendation and Congress' July 2002 approval of Yucca Mountain, Nevada, as the Nation's high level nuclear waste repository was a seminal step in advancing the Department's goal to ensure the safe and secure disposition of dangerous nuclear materials away from the hands of terrorists. The budget requests $591 million for the Department's repository program. This request coupled with the fiscal year 2003 requested amount would support the completion of work needed for the submission of a license application to the Nuclear Regulatory Commission in 2004 and the development of transportation capabilities needed to initiate repository operations by 2010. However, the $131 million reduction from the President's fiscal year 2003 budget request together with the 4 month-long continuing resolution, has introduced a high risk in our ability to meet a December 2004 license application date, but we are making every effort to meet this objective.

HOMELAND SECURITY

Safeguards and Security

Safeguarding and securing DOE's nuclear facilities, materials and information, and protection of our employees remains one of the administration's top priorities. As such, the Department's total safeguards and security funding in the fiscal year 2004 request is $1.2 billion, an increase of $179 million over the fiscal year 2003 request. Within the amount requested, $586 million will support activities to safeguard DOE's NNSA nuclear weapon facilities, $357 million will support activities that protect the Cold War nuclear waste material being cleaned up at our environmental cleanup sites, $238 million will fund the security of the Department complex-wide, and $48.1 million will support the continued safeguards and security activities at our scientific laboratories and facilities. A portion of these expenses will be recovered through charges to non-DOE customers performing work at DOE laboratories. I will continue to work closely with the President to ensure our homeland

security and fulfill our obligation to protect the American people. With the administration's strong will and commitment to national security, the funding request for safeguards and security will translate into measurable results.

Counterintelligence

The Department's world leadership position in nuclear weapons knowledge as well as its extraordinary research and development of many leading edge technologies makes it a priority target of foreign intelligence collection. To offset this threat, the Department is requesting $46 million to support counterintelligence activities across the entire complex. These activities are focused on protecting our nuclear weapons secrets, but also emphasize a high priority on protecting our other sensitive scientific endeavors, and on combining with other departmental elements in our efforts to defeat terrorism.

Independent Oversight

I rely upon my independent oversight organization to provide me with a current and accurate assessment of the Department, including the NNSA, in the areas of safeguards and security, cyber security, emergency management, and environment, safety and health. This office conducts comprehensive evaluations to verify that the Department's critical assets are protected, that the Department can effectively respond to any emergency, and that site workers, the public, and the environment are protected from hazardous operations and materials. Independent oversight activities are conducted with a focus on independence and objectivity, using a systematic oversight process, with an extensive emphasis on performance and performance testing. For fiscal year 2004, our budget proposes $22.6 million for an independent oversight program that promotes excellence and continuous improvement for the protection of departmental critical assets.

Energy Assurance

Failure to meet increasing energy demand with increased energy supplies and vulnerability to disruptions from natural or malevolent causes could threaten our Nation's economic prosperity, alter the way we live our lives, and threaten our national security.

DOE will continue to assist in meeting this homeland security challenge. To that end, the fiscal year 2004 budget proposal maintains an analytical capability to support the Department's energy security responsibilities. Included in the budget is $4.3 million for Energy Assurance activities to continue to conduct energy security activities in coordination with the Department of Homeland Security. This is a key concern underlying the President's NEP recommendations.

CONCLUSION

Mr. Chairman and members of this committee that concludes my prepared statement. I will be glad to answer any questions you may have at this time.

Chairman WARNER. Thank you, Mr. Secretary. We are both quite familiar with the subjects at hand, and we commend you for your stewardship to date. You have some challenges for the future.

I will defer to Senator McCain. He has another engagement, and then I will resume after Senator Levin.

Senator MCCAIN. Secretary Abraham, thank you for being here and thank you for your excellent stewardship of this very important branch of Government.

Mr. Secretary, I would just like to ask you about a very important issue that has arisen this morning. It is very important in the State of Arizona and the country, and I do not know if you had a chance to see the piece that was carried in The Washington Times article by Bill Gertz and Jerry Seper. It is titled "Nation's Biggest Nuclear Power Plant a Terrorist Target." "Terrorists have targeted the United States' largest nuclear power plant near Phoenix, and security officials are looking for Iraqi government 'sleeper cells' that might carry out the attack, The Washington Times has learned.

"The threat to the Palo Verde nuclear plant, located in the Sonora desert 50 miles west of Phoenix, prompted the deployment of National Guard troops to the facility. . . .

"'We understand the sensitivity.'"

Then it goes on to say, "One official said the report on the Palo Verde threat was contained in classified intelligence reports distributed to law-enforcement and security officials.

"A second U.S. official confirmed the report and said it was 'uncorroborated threat information' that was sent to appropriate U.S. security authorities."

[The information referred to follows:]

NATION'S BIGGEST NUCLEAR POWER PLANT A TERRORIST TARGET

[BY BILL GERTZ AND JERRY SEPER—THE WASHINGTON TIMES]

March 20, 2003

Terrorists have targeted the United States' largest nuclear power plant near Phoenix, and security officials are looking for Iraqi government "sleeper cells" that might carry out the attack, The Washington Times has learned.

The threat to the Palo Verde nuclear plant, located in the Sonora desert 50 miles west of Phoenix, prompted the deployment of National Guard troops to the facility, according to U.S. officials.

"We understand the sensitivity of this time, and we are very, very committed to protecting the safe operation of Palo Verde," Jim McDonald, a spokesman for the Arizona Public Service Co., which owns the reactor complex, said in an interview.

Mr. McDonald declined to comment on specific intelligence indicating a threat to Palo Verde but noted that the troops were added Tuesday by order of Arizona Gov. Janet Napolitano.

One official said the report on the Palo Verde threat was contained in classified intelligence reports distributed to law-enforcement and security officials.

A second U.S. official confirmed the report and said it was "uncorroborated threat information" that was sent to appropriate U.S. security authorities.

Palo Verde is the largest nuclear power facility in the United States with three reactors that produced 30 billion kilowatt hours of electricity last year, Mr. McDonald said.

The threat to attack the facility came from sensitive information indicating that the plant was targeted by Middle Eastern terrorists who were not further identified.

The threat to Palo Verde comes as other intelligence reports indicate that Iraq has set up clandestine cells of operatives inside the United States or abroad that could be called on to conduct attacks or sabotage on behalf of Baghdad.

For example, recent intelligence reports indicated that Iraqi diplomats in Cairo had conducted surveillance of the U.S. Embassy there, U.S. officials said.

Officials did not say how many Iraqi cells are in the country. Baghdad has nearly 250 officials posted to the United States, most of them at its U.N. mission in New York.

A Bush administration official said the State Department has decided to expel the three Iraqi diplomats posted to Baghdad's interest section in Washington. The expulsion order is expected as early as today.

Only Iraqi officials engaged in improper intelligence or terrorism-related activity can be expelled from the U.N. mission.

Meanwhile, the FBI warned law-enforcement officials yesterday to watch for suspicious activity by people driving Iraqi diplomatic license plates.

"Suspicious activity involving vehicles bearing Iraqi diplomatic license plates should be reported immediately to the nearest Joint Terrorism Task Force," the FBI stated in a weekly intelligence bulletin.

Codes used by cars driven by Iraqi diplomats in Washington bear the "TF," and Iraqi U.N. diplomatic vehicles in New York have the "TS" code.

Intelligence officials said the administration has urged governments around the world to expel Iraqi diplomats, and several have complied.

Iraqi diplomats have been expelled in recent days from Czech Republic, Hungary, Romania, Germany, Sweden, Finland, Thailand, and Australia.

Two Iraqis also were expelled from the United States on March 5 after they were identified as intelligence officers, U.S. officials said.

Justice Department officials yesterday confirmed that the FBI is looking to interview as many as 50,000 Iraqis now in the United States for information that could help U.S. forces. They said a war with Iraq is expected to dramatically increase the chances of terrorist attacks against U.S. targets in this country and abroad.

One senior department official said that while most Iraqis in this country are not believed to be terrorists or associated with terrorist organizations, Muslim extremists within the Iraqi community who are affiliated with al Qaeda could use a war as the reason for an attack.

Among the Iraqis being sought for questioning are 3,000 illegal immigrants said to be missing, amid U.S. concerns that some could be connected with groups or agents of the Iraqi regime.

Earlier this week, Mexican authorities detained six Iraqi citizens as they sought to cross into the United States from Tijuana. The six, including one woman, claimed to be German citizens on their arrival at the Tijuana airport Tuesday night on a flight from Mexico City. They have been returned to Mexico City for questioning.

It could not be learned if the detained Iraqis were connected to the plot to attack Palo Verde.

Border Patrol authorities also confirmed that a diary written in Arabic was found last week in a backpack discovered on a southern Arizona trail frequently used by illegal aliens. The diary, according to the sources, contained names and telephone numbers of at least two persons in Canada and Iran.

The FBI has since taken custody of the diary, but refused comment on it yesterday.

Palo Verde is the largest nuclear power facility in America, and I wonder if you could shed any more light on these reports. As you can imagine, it has caused significant concern back in the State of Arizona, as well as around the country.

Secretary ABRAHAM. Senator, obviously, I will not comment on the specific intelligence reports that are referenced in the article. I would just say that I am aware of the issue and I know that actions are being taken on a broad basis to both explore any of the intelligence information that has come to light, as well as to take adequate security procedures to make certain that any threat that might be posed can be effectively dealt with. I think that all actions that can be taken are and will be taken by the appropriate authorities to try to minimize any possible risks involved.

Senator MCCAIN. You are working with other agencies to make sure that the threat of this attack or a possible attack is minimized?

Secretary ABRAHAM. Well, we are playing the role that our Department has. Obviously, nuclear reactors, private facilities, are under the jurisdiction of the Nuclear Regulatory Commission who has the lead responsibility here. We provide support services, as do other Federal agencies to that oversight. I am informed that actions are being taken by all the appropriate agencies, at the direction of NRC and others, to address the concerns that have been raised.

Senator MCCAIN. I thank you. I thank you, Mr. Chairman.

Chairman WARNER. Thank you, Senator, very much.

Senator MCCAIN. Thank you very much.

Chairman WARNER. Senator Levin.

Senator LEVIN. Thank you, Mr. Chairman.

One element of the Department of Energy's nonproliferation program is the effort to ensure that Russian nuclear scientists are not tempted to work for proliferants. The Initiatives for Proliferation Prevention, or IPP, program provides work for scientists in conjunction with U.S. business interests, as you well know, and it seems to be working well.

Another program, however, is not working so well, and that is the effort to redevelop some of the Russian nuclear cities and facilities. Apparently the Russians are trying to address that issue. I am wondering whether or not the DOE is rethinking the approach to the whole Russian nuclear cities issue.

Secretary ABRAHAM. I would not say that we are rethinking the whole approach. I think we are trying to find ways to make all of these programs as effective as possible. I think there has been definitely some progress forward in terms of engaging more U.S. businesses to partner and engage in activities that will employ technicians and scientists. I know that our Ambassador to Russia, Ambassador Vershbow, recently visited one of these cities with my counterpart, the head of the Ministry of Atomic Energy, to explore other new promising opportunities.

But there has been, I think, some particularly positive progress in terms of the engagement of, at least initially, American companies, and now I understand also Russian companies in not only engaging in more activities both in the nuclear cities themselves, but also employing Russian scientists and technicians.

We are pleased about that progress. We hope we can see it continue to expand. But in terms of changing the program, that is not under contemplation at this point.

Senator LEVIN. Would you take a look at the Senate bill 6, which was introduced by Senator Daschle and others at the beginning of Congress? There are some ideas in that bill on how to revitalize this Russian nuclear cities program. If you and your staff could take a look at it and get back to us with your comments on the nuclear cities provisions in that bill, it would be appreciated.

[The information referred to follows:]

The Department of Energy has been quite successful in its efforts to reduce the threat of WMD without the significant changes proposed in S.6. The National Security Council has reviewed our programs, and we are meeting and adhering to their guidelines. We closely coordinate with the Department of State and the rest of the interagency on our nonproliferation programs through the National Security Council's Policy Coordination Committees (PCC).

First, S.6 would introduce what we feel are unnecessary coordination processes and procedures that would divert key resources from the implementation of on-the-ground activities. For example, we believe that there is little need to create a joint U.S.-Russian commission to advise on the shutdown of Russian nuclear weapons assembly and disassembly facilities (Section 9006(c)). We already cooperate closely with the Russians in this area to determine relevant areas of work. We believe that such an effort would generate more reporting and other requirements. Furthermore, we have multiple checkpoints within the U.S. interagency for approval of projects. Creating a commission would lead to duplication of activities and efforts.

Section 9006(e) calls for Russia to bear only 15 percent of the cost of downsizing, and this could be construed as committing the U.S. to pay the remaining 85 percent. Russia should continue to bear the largest financial burden of downsizing its own nuclear weapons complex. Therefore, we recommend that the lowest fixed participation, at 15 percent in this bill, be stricken.

In Section 9008 (a) and (b), the proposed $25 million authorization for IPP is problematic whether it is mandatory or additional (discretionary) funds. If the funds are discretionary, they should be appropriated to the integrated Russian Transition Initiatives (RTI) program [which includes both IPP and the Nuclear Cities Initiative (NCI)], and not specifically to IPP, since downsizing is not IPP's mission. If the funds are mandatory, it will force IPP to spend more than its entire budget to work at a few facilities designated for shutdown in a limited number of closed cities in Russia. In fact, IPP is presently working at dozens of locations in Russia and other former Soviet states where nuclear, biological and chemical weapons scientists are being engaged on non-weapons enterprises. This work would be eliminated and many targeted scientists with very sensitive expertise would be vulnerable for re-

cruitment by government and terrorist groups. If the efforts at downsizing are a priority for acceleration, then it is advisable to increase funding to RTI, which is already working on downsizing efforts.

We appreciate the continued congressional attention to threats posed by weapons, materials, and expertise. We in the administration are always willing to work with Congress to address and overcome threats to U.S. national security.

Senator LEVIN. The DOE budget request for fiscal year 2003 included $15.5 million for a Robust Nuclear Earth Penetrator. The fiscal year 2004 budget request includes $15 million for that penetrator, $6 million for advanced nuclear weapons concepts, and $17 million for enhanced test readiness to reduce the time needed to conduct a nuclear test.

In addition, the Defense Department has sought a repeal of the 1993 prohibition on research and development that could lead to the production of a low-yield nuclear weapon. Is the Department of Energy working on new nuclear weapons designs?

Secretary ABRAHAM. Not on a new weapon design, no. I think that at this point, as I understand the provisions of the legislation, the work which relates to the Robust Nuclear Earth Penetrator only can take place after the Department of Defense submits a report to Congress, and then 30 days after that. I do not believe that report has been submitted as of yet, and so the funds, the $15 million for that effort, are not yet available to us to work on. But once they are, then we would initiate conceptual work. But that is not directed toward a new weapon.

I think what we have been given as an assignment, as part of a broader study of the need for this capability, is the responsibility to look at whether or not that capability can be in some way provided by a modification of an existing weapon.

Senator LEVIN. The Defense Department, as I indicated, sought the repeal of the 1993 prohibition on that research and development effort that could lead to the production of a low-yield nuclear weapon. Were you involved in the decision to seek the repeal of that language? Or did you—and I am referring either to you or the DOE as an agency—request the Department of Defense to seek the repeal of the 1993 language?

Secretary ABRAHAM. I would have to check to determine the exact role that people from our agency played in the development of the policy, and I would be glad to submit that for the record.

[The information referred to follows:]

Both the Departments of Energy and Defense support a repeal of section 3136 of the Fiscal Year 1994 National Defense Authorization Act. We must recognize that the national security challenges that confront the Nation today are dramatically different than when the law was passed almost a decade ago. We believe it is only prudent to allow the laboratories to undertake research into technical options that could strengthen our ability to deter, dissuade, and respond to the national security challenges of the 21st century.

Its also important to understand that the Department of Energy has no requirements from the Department of Defense for any new nuclear weapons nor does repeal of section 3136 usurp Congress' right to authorize and appropriate the considerable sums that would be required to build or deploy new or modified nuclear weapons consistent with section 3143 of the Fiscal Year 2003 National Defense Authorization Act.

But I would just say to the committee, as you indicated, when you read the definition, the restriction does not simply prohibit research on new low-yield warheads but also prohibits any activities

which could potentially lead to the production by the United States of such a warhead.

What we believe is that such a broad restriction has a real impact, a chilling effect of sorts, on the work scientists and engineers are doing and it really impedes efforts to explore technical options to respond to threats. So we support the position because we think that it has had a chilling impact on the work that can be done because it is such a broad definition. Any activities which could potentially lead to production encompasses a lot of the work that could conceivably be done in our weapons labs.

Senator LEVIN. The number one threat that we all face is the proliferation of nuclear weapons and other weapons of mass destruction. We are trying to persuade other countries to not put greater emphasis on nuclear weapons, not to test. We are highly critical of India and Pakistan for testing. We are highly critical, appropriately so, of North Korea when they pull out of the Nonproliferation Treaty.

If you want to talk about chilling effect on our scientists, the chilling effect on our whole position and point of view in the world is that we have to reduce the number of nuclear weapons in this world and the reliance on nuclear weapons in this world. If we start to move down the road of we want modifications to improve capabilities, we want an earth penetrator, we want millions of dollars to get readier to resume testing, that sends the opposite message to the world that we are saying, on the one hand, do not pull out of the Nonproliferation Treaty, do not test weapons, do not rely on nukes. Then when these budget requests come out to us showing greater reliance, greater capability, greater willingness to consider resumption of testing, it undermines or chills the argument that we are making to the rest of the world. So I hope when you look at the chilling reference and the chilling language, that you also look at what the chilling effect is in terms of our argument on the other side of this equation, which is the nonproliferation side of the equation.

Secretary ABRAHAM. Obviously, because our Department has the responsibilities both, on one hand, for the work we do in our complex and for much of the nonproliferation work we do, that is something that we are always mindful of. I would say that at a time when we have not been testing, when we have terminated the plutonium pit production capabilities of the country, when we have not been developing new weapons, when we have passed the plywood restrictions, and so on, we have, nonetheless, seen the message. That message has not, it seems to me, resulted in others refraining from the development of or the seeking of these weapons.

What we are trying to do here is maintain capabilities that allow us to respond to threats of the new century, as outlined in the Nuclear Posture Review or as might come forward in the future. We will try to always take both of those considerations into account.

But our work at least in the Department is not at this stage that of developing new weapons but maintaining the capacity, the capability, and the skills even of some of the people so that we are at least able, when called upon, to perform the job we are asked to do, which is the sort of engineering work, as well as the responsibility to be able to certify to you and the country and the Presi-

dent, obviously, the capability of our stockpile, its readiness, as well as its reliability.

Senator LEVIN. Thank you. My time is up.

Chairman WARNER. Mr. Secretary, I would say in rebuttal to my distinguished colleague's observation that there are some very important collateral advantages to repeal of the ban on low-yield nuclear weapons research. You pointed out the importance of the maintaining of a cadre of individuals trained should this administration or a future administration feel that it is essential for our own security interests and primarily for deterrent interests to move in the direction of a low-yield nuclear weapon.

But are there not many collateral benefits derivative from lifting the ban to the science-based Stockpile Stewardship Program if the scientists are allowed to conduct some low-yield weapon research?

Secretary ABRAHAM. As I indicated, I think we view this whole area as one in terms of maintaining capabilities. We are concerned about the fact that an effective Stockpile Stewardship Program requires not only tremendous investment, which this committee has supported in new technologies from the National Ignition Facility to the computer programs, but also the human skills and technical expertise that has to be maintained not only in retaining talent but also in recruiting talent and keeping skills well developed. We see it in the area of test readiness, for instance, where we find ourselves with a work force not necessarily prepared to, if called upon, conduct tests.

We think that both in the area of advance concept research and in terms of just the general sort of technical research that might be conducted in the labs, that if every time scientists seek to engage in some type of research, they feel they have to go to the general counsel to determine whether or not the standard, which is a pretty broad definition standard, is in jeopardy of being violated, we feel that that has had an impact on the work force and on the kind of work that they can do. So, yes, it does have collateral impact on the effectiveness of the Stockpile Stewardship Program.

Chairman WARNER. That is the key acknowledgement that I was hoping to elicit from you. This Senator has followed this Stockpile Stewardship Program since its inception. I think it is important that you give us a little update on this program because originally, in 1993 and 1995, it was thought that we would take about 10 years to set up a comprehensive science-based Stockpile Stewardship Program, which would begin to validate the safety, security, and reliability of the aging nuclear weapons stockpile. We are now reaching the end of that decade, and I would like to have your views as to what is the progress we are making.

For those following this hearing who might not recall this history, when the decision made was to stop actual testing, we then determined the reliability and safety. I underline safety because many of our American citizens have volunteered to care for this inventory and, indeed, the areas in which they live. It is important that that safety be without any doubt or question.

Now, what is the status of the Stockpile Stewardship Program in view of the original estimates of a decade from the 1993–1995 time frame to have it full up operational?

Secretary ABRAHAM. Many of the programs, many of the tools are in the process of either being developed or will be developed in the next few years. I am certainly not capable of telling the committee today that all of them will be on line and fully operational in the time frame of 2003 to 2005. They simply will not be. We are still in the process of building the National Ignition Facility. It is now largely completed, but there is obviously considerable more work to do there.

I mentioned already that our new advanced supercomputing initiative is launching the effort to build the two literally largest computers in the world, but that is going to take several years to complete. When they are finished, they will form part of the capability.

The DARHT program is on track.

We are not, however, in a position where, within the next year or 2, we will have a fully operational alternative and effective alternative to use as an alternative for testing the reliability of the stockpile. We believe these tools ultimately will be able to help us make those determinations, but we are not in the position of saying——

Chairman WARNER. So let us face facts. You inherited a program, and I am not suggesting your predecessors in any way were other than doing their very best to put it together within the original time frame of, as you said, 2003–2005. You acknowledge it is not going to make it. What is your best estimate of when this system will be full up?

Secretary ABRAHAM. I do not feel today that I can give you that estimate, Senator, because I think that each of these tools interacts with one another in the process of trying to replicate or trying to assess the capability of a weapon. At least in my appearances here, I do not think I have ever indicated that we know with absolute certainty. We believe that the combination of these tools will serve to allow us to determine the reliability of the stockpile, but they are not operational yet. At that point, we will hopefully be successful as we intend to be.

Chairman WARNER. Now, the program, though, does in its current status yield a considerable amount of data that contributes to your annual certification. Am I not correct?

Secretary ABRAHAM. Yes, that is right.

Chairman WARNER. Even though it is not full up. I do not know if you can say where on the curve between zero and full up it is at the moment, but it is providing very valuable information which contributes to your annual certification. Am I correct on that?

Secretary ABRAHAM. That is right.

Chairman WARNER. Fine. My time has expired.

I see Senator Akaka has joined us.

Senator AKAKA. Thank you very much, Mr. Chairman.

I want to add my welcome to Secretary Abraham. It is always good to see you on the Hill.

Mr. Chairman, I would ask that my statement be included in the record.

Chairman WARNER. Without objection.

[The prepared statement of Senator Akaka follows:]

PREPARED STATEMENT BY SENATOR DANIEL K. AKAKA

Thank you, Mr. Chairman, for holding this hearing. I welcome the opportunity to have Secretary Abraham testify before us today. The issue I want to focus on is the administration's approach to nuclear non-proliferation.

Stopping the spread of nuclear weapons has been an American national security goal since the end of World War II. In 1946, at the inaugural session of the newly created U.N. Atomic Energy Commission, the U.S. Representative Bernard Baruch declared, "We are here to make a choice between the quick and the dead." He underscored the necessity of limiting nuclear weapons to avoid a nuclear disaster and to meet the world's demands for peace and security.

Out of these early efforts grew the Nuclear Non-Proliferation Treaty, which was completed in 1968 with over 180 countries as signatories today. It is the cornerstone of the international nuclear non-proliferation regime. The treaty contains a special bargain: the so-called non-nuclear states would forswear acquiring nuclear weapons, and, in exchange, the nuclear states—the United States, Russia, France, England and China—have committed to achieving their own nuclear disarmament. This commitment is contained in Article 6 of the treaty.

The U.S. remains committed to strengthening the Non-Proliferation Treaty. Secretary of State Powell said so in his testimony in support of the recently approved Moscow strategic nuclear arms treaty. Yet, the administration's current policies make me wonder if this is truly the case.

Rather than fulfilling our commitments to reduce the number and limit the role of our nuclear weapons, we seem to be holding their numbers steady and expanding their missions.

For example, the Moscow Treaty has a worthwhile goal, the further reduction of strategic nuclear arsenals. Yet, in practice, the U.S. nuclear stockpile may not be much smaller in 2012, when the treaty is over, than it is today. As many have noted, the Moscow Treaty does not call for the dismantlement of any nuclear warheads or launchers under any timetable whatsoever. The majority of U.S. or Russian nuclear weapons could be removed from launchers and placed into storage. From storage, they could easily be returned to active duty.

I hope Secretary Abraham today can provide more details about the administration's announced plans to dismantle some of the weapons removed from launchers. I would like to know how many are involved, or, at least, what percentage will be dismantled. But more importantly, I would like to know why all of the warheads removed cannot be dismantled. Russia would eliminate more nuclear weapons if the U.S. did the same. What is the justification for keeping such a large number of warheads?

The administration also wants to embark on at least two new nuclear weapons programs. The administration said that a robust earth penetrating nuclear weapon (RNEP), or bunker buster, is needed to destroy a growing number of hard and deeply buried targets. It may have a yield in the range of 100s of kilotons. In contrast, the bombs dropped on Hiroshima and Nagasaki had yields of less than 20 kilotons.

In addition, the administration is seeking to repeal the congressional prohibition on so-called low-yield nuclear weapons, those with less than five kilotons of explosive power. Low-yield, or mini-nukes, are often described by the administration as potentially useful in destroying buried weapon caches or weapons of mass destruction facilities in urban areas because of the view—I call it a myth—that these weapons would minimize civilian losses.

I do not think these new nuclear weapons are necessary. In the 1990s, we deployed the B6–11 bomb that has a large yield and is for attacking buried targets. We also have several nuclear warheads types that have small yields. Finally, we have an array of conventional weapons that can accomplish difficult missions.

Moreover, seeking to develop new nuclear weapons and expand their role to attacking other than the nuclear forces of other nations is a dangerous development. It sends the wrong signal to the rest of the world about the U.S. commitment to the Nuclear Non-Proliferation Treaty. We should be thinking how we, along with the rest of the countries possessing nuclear arsenals, can reduce our reliance on nuclear weapons and reduce our nuclear stockpiles.

Mr. Chairman, I have a number of other concerns about the administration's nuclear policies. The administration's effort to increase the readiness of our nuclear weapons test site is quite worrisome. Again it sends the wrong signal to the rest of the world about our commitment to stopping the spread of nuclear weapons. We must keep the weapons we have safe and secure, but we can accomplish this without a new round of nuclear tests.

I hope the administration will clarify these questions in today's hearing. Our limited defense dollars will be constrained by the growing Federal deficit and a war

on Iraq. The burden of proof is on the administration to show why we need to maintain such a large nuclear arsenal and continue to develop unneeded costly new nuclear weapons systems, when we have many other pressing defense and domestic priorities.

Senator AKAKA. Mr. Secretary, many are concerned about the Moscow Treaty. The treaty does not have a timetable for reductions or an agreement for the dismantlement of any nuclear warheads. Could you please provide us with more details now or for the record about the administration's plans to dismantle warheads and also, in round numbers, how many or what percentage of the warheads removed will be dismantled?

Secretary ABRAHAM. Let me provide, if I could, a more detailed response to that for the record. Let me, though, just put a little bit of context in your evaluation.

When we talk about the capabilities for dismantlement, it is important to always remember that the same facilities and, to some extent, the same personnel who would work on dismantlement are also responsible for weapons refurbishment and our life extension program for weapons. We really have, in terms of the process, to balance the need to keep the existing stockpile in a state of effective readiness, and the life extension programs are very extensive. We do dismantlement even on an ongoing basis. Part of it would be included in the budget we have requested. But we fit that work in as we also conduct other work in our Pantex facility as opportunity provides itself.

If we wish to do more dismantlement in relationship to the Moscow Treaty or any other decisions that were made, it either means we have to expand the complex to be able to do that or, literally, reduce work that is done on the maintaining of the reliability of existing weapons or the life extension program.

Those are the factors, and I would be happy to provide for the record a more specific answer as to the sort of timetable envisioned.

[The information referred to follows:]

The following is the current plan for warhead dismantlements:

	FY 2003	FY 2004	FY 2005
W56			
B61			
W62			
W76			
W78			
W79			
W80			
B83			
W84			
W87			
Total			

DELETED

While the Moscow Treaty does not specifically call for dismantlement of warheads, the Department of Energy is working with the Department of Defense to identify warheads that are excess to requirements and plan for their dismantlement. With implementation of the Nuclear Posture Review, DOE is expecting additional retirements and is currently examining the possibility of new dismantlements in the fiscal year 2004–2007 timeframe. [Deleted.] A moderate amount of increased dismantlements could be accommodated within the current and planned nuclear weapons complex capacity before the three Life Extension Programs get fully underway and utilize most of the available capacity later this decade.

Senator AKAKA. Thank you for your response.

Mr. Secretary, Senator Levin raised the issue of the administration's plans to develop a robust earth penetrating nuclear weapon. He also mentioned the administration's desire to repeal the congressional prohibition on low-yield nuclear weapons, those with less than 5 kilotons of explosive power. Low-yield and many nukes are often described by the administration as potentially useful in destroying buried weapons of mass destruction facilities in urban areas. Theoretically these weapons would minimize civilian losses.

Yet, in the 1990s we deployed the B6–11 bomb that has a large yield and is for attacking buried targets. We also have several nuclear warhead types that have small yields. Finally, we have an array of conventional weapons that can accomplish difficult missions.

My question to you is, do you think it will be possible to use an earth-penetrating nuclear weapon in an urban area without causing collateral damage?

Secretary ABRAHAM. I think that one of the reasons the project which we are being asked to study is going on is because of the concern, among other things, that, first of all, hardened and deeply buried targets provide a serious challenge as a matter of current and projected future military and national security challenges, that we needed a capability to deal with that, that existing capabilities for a variety of reasons, part of which I think included the belief that they might be more destructive than necessary. I am not sure if that would be only in an urban setting, but just in a broader sense. I think the conclusion that was reached, as a result of the Nuclear Posture Review, was that we needed to explore a wide array of possible responses to deal with that threat.

Only one of those is in our area. That is the idea of the so-called RNEP, the Robust Nuclear Earth Penetrator, research—to determine whether or not we might be able to modify an existing nuclear capability to be able to address this. But it is also my understanding that non-nuclear studies are also being conducted by the Defense Department to see if there are other ways that might be more effective. I think part of that decision making would, obviously, deal with the question of collateral damage and what is the most efficient and effective way of addressing this threat.

Senator AKAKA. Thank you very much for your responses.

Mr. Chairman, my time has expired.

Senator ALLARD [presiding]. Thank you, Senator Akaka.

Without objection, I would like to make my opening statement a part of the record.

[The prepared statement of Senator Allard follows:]

PREPARED STATEMENT BY SENATOR WAYNE ALLARD

Mr. Chairman and Senator Levin, thank you very much for holding this very important hearing on the Department of Energy's national security programs. As always, it is good to see Secretary Abraham.

The Strategic Forces Subcommittee, which I have the privilege of being the Chairman, is responsible for authorizing over two-thirds of the Department of Energy's budget. A large share of the programs we oversee are in the National Nuclear Security Administration (NNSA). These programs are vital to our Nation and our allies.

The ability to ensure that our nuclear stockpile is safe, secure, and reliable, is the most important job at DOE and is THE mission of NNSA. However, I believe DOE can enhance this mission. For the last 10 years, this mission has been focused on the past—meaning life extensions on our aging, Cold War nuclear stockpile. However, while this is their most critical mission, I believe that we have to begin to look to the future and at what our next threat or threats will look like. This means that DOE and NNSA scientists must be given the freedom to think and explore. They must be allowed to be scientists. I realize this is controversial, but unless we recognize that the world is different and that we must adept to this changing threat structure, we could find ourselves with the wrong deterrent for the future threats.

A matter of tremendous importance and a priority for me with defense nuclear sites is our Environmental Management program. The problems of the last half century will take a coherent policy of innovation, integration, and funding to overcome. Luckily for you and the Nation there are good and dedicated people in these programs. The scientists at our national labs are the best in the world and the engineers and craftsmen at our cleanup and Naval Reactors sites continue to meet the ever-increasing demands we place on them.

I would like to end with a statement that I have said many times: No site is an island. That is why is it so important for all States with DOE sites, whether they have an ongoing mission or are slated for closure, must keep the national objectives and needs at the forefront. We all care deeply about our individual sites and situations, but we must work together to make the DOE complex work for all of us.

Again, thank you for holding this hearing, and I look forward to hearing Secretary Abraham's testimony.

Senator ALLARD. Senator Abraham, I would like to welcome you personally.

I feel that we should not put science at a standstill. I do hope and would encourage you to move forward with this idea of nuclear concepts. I think that there is some advantage to continuing to think from even a scientific basis all the parameters of nuclear.

Before we get into a lot of that discussion any further, I would just like to thank you and compliment you on your commitment to cleaning up nuclear sites here in this country. You have worked hard at it. You have visited a number of those sites, I know.

In 1996, when I was first elected to the United States Senate, the project I first got involved in was out at Rocky Flats. At that point in time, about 1997, they were talking about a cleanup date of 2060 to 2065. It was determined at that time that if we put more money into the program, we could advance cleanup and meet a deadline of 2006. It appears as though we are going to meet that 2006. If you have any doubts in that regard, I might ask you to mention that because that is very important. I think, if nothing else, we have set a standard for other cleanup of other sites. I am real proud from that perspective.

Other sites were cooperative. There were three of them originally. We talked about Rocky Flats, Mound, and then Fernald. It seems as though some of the other sites that were agreeing to this advance appropriations to clean up Rocky Flats and the other two agreed with the understanding that there would be money available once Rocky Flats got cleared up to help advance their cleanup.

My question to you is, once the first three closure sites are cleaned up and closed, does DOE plan to use the annual savings

realized from the completion of the 2006 closure sites to accelerate the cleanup and closure of the remaining environmental management sites?

Secretary ABRAHAM. I think there has been somewhat of an adjustment across the entire complex in the way we look at cleanup, and I think, frankly, the Rocky Flats experience was the model that has helped us to move to a new approach. Our Under Secretary of the Department for Energy, Science, and Environment, Secretary Card, was the CEO of the operation at Rocky Flats, and our Assistant Secretary for Environmental Management, Jessie Roberson, was the Department site official that helped bring about the expedited cleanup.

When they came into their jobs, I asked them to conduct a Top-to-Bottom Review of the entire complex to see what we could do to accelerate cleanup complex-wide. That is what we have done. We thought that the approach taken at Rocky, at Fernald, and at Mound was not appropriate for everybody. We thought that you should not have to just live at one of those sites to be able to see your site cleaned up in a short time frame. What we were confronted with in the other sites, much as was the case at Rocky Flats, was a 70-year game plan for cleanup.

At each site in the last year-and-a-half, we have developed an accelerated program. In virtually every case, the site letters of intent with the State and, slowly but surely, with the regulators, whether that is the local regulators or the EPA, are being developed to expedite all the sites.

Consequently, instead of having a budget in which scarce resources are going to be fought for by all the sites with inadequate amounts of money available to expedite all the cleanup, the budget we are submitting this year is consistent with moving all the sites ahead at an accelerated rate. Obviously, when we passed the point where Rocky Flats is finished in 2007, we would have a very substantial fall-off in terms of expenses for that site. Whether we will need all of that money to keep the other sites on their fast cleanup remains to be seen.

But our goal is to front-end funding for cleanup across the spectrum of the complex. That is why we are asking for the largest Environmental Management budget the Department has ever requested. The budget we have asked for is consistent with this very accelerated program. We believe we can clean up the entire set of facilities that were in the Environmental Management mission not in 2070, but at least as early as 2035 and perhaps sooner. We do not even want to wait, I guess I am saying, until Rocky Flats is finished to start injecting more funds into the other sites.

Senator ALLARD. I appreciate your commitment to environmental cleanup.

What is the Department of Energy's policy with regards to facilities which are managed by Environmental Management but still have a long-term national security or science mission?

Secretary ABRAHAM. We recognize that we have sites where there are ongoing activities but where there is also a substantial cleanup responsibility. One of the challenges that we have is determining whether the ongoing missions are ones that should place the site

really under the leadership of the part of our Department that will be taking the responsibility for that future mission.

That is one of the things we have done up at the site in Idaho where we have concluded that the long-term mission of Idaho is a mission it has had for some time, but now is a mission with, I think, a more focused effort, which is in the area of nuclear energy research. Our Nuclear Energy Division now has principal oversight for the site. That does not mean the Environmental Management programs will be slowed down. In fact, they will be sped up. That is now being looked at not as primarily an EM program, but rather as a nuclear energy program.

Senator ALLARD. You are saying that the landlord then would assume that main responsibility at that site.

Secretary ABRAHAM. Right. We are moving, in that case, to a different division. Essentially our two under secretaries, Under Secretary Card and the Acting Administrator for our NNSA division, Ambassador Brooks, are right now in the process of looking down the road to figuring out where responsibilities in the future ought to be allocated. Part of that discussion also goes to where legacy responsibilities down the road should be allocated as to whether they will remain simply in an Environmental Management division or whether the new landlord, as you put it, the new lead agency or lead part of our Department, should now take on that responsibility. We are still working on what makes the most sense for the future.

Senator ALLARD. Again, thank you for your effort on environmental management and cleanup.

I still have some time left, so I want to follow up on NNSA. If they receive a new military requirement for a low-yield weapon, what steps need to take place to allow the national weapons labs and plants to begin production of a new weapon?

Secretary ABRAHAM. That is a fairly complicated series of steps. I think I may have somewhere in my materials here the multiple step process of weapons production, but I guess I cannot find it right now, Senator. Maybe I could provide that process, that legal process, to you.

At this stage, though, I just would reiterate. We are not proceeding ahead even with the research on the RNEP because we still await the Defense Department's submission of its report to Congress.

Senator ALLARD. Just one brief question. This is probably the most important question in this regard. Can NNSA begin manufacturing new low-yield nuclear weapons without getting a new approval from Congress?

Secretary ABRAHAM. If the question you are asking is whether or not we can proceed on the study that we are engaging in to modify an existing warhead, that would be a different status than the development of a new weapon because that distinction is fairly significant. But I am not sure on the precise legal status.

Senator ALLARD. If you could get a response back to us, I think the committee would appreciate that.

Secretary ABRAHAM. Yes. We would be happy to do that.

Senator ALLARD. If we get a written response back, it would be fine.

[The information referred to follows:]

No, the Department of Energy cannot begin the research and development, let alone the manufacture of new, low yield nuclear weapons without obtaining relief from Section 3136 of P.L. 103–160, the Fiscal Year 1994 National Defense Authorization Act. This provision prohibits the department ". . . from conducting the research and development that could lead to the production by the United States of a low yield nuclear weapon which, as of the date of enactment of this Act, has not entered production." The law also defines low yield as a "nuclear weapon that has a yield of less than 5 kilotons."

Section 3143 of Public Law 107–314, the Fiscal Year 2003 National Defense Authorization Act, requires the Department of Energy to request funds in the President's budget for the development or production of a new nuclear weapon. The budget entry is specified as a single dedicated line item for each such activity that is in phase 3 or higher for new nuclear weapons, or phase 6.3 or higher for weapons refurbishment. The Department currently has no requirement from the Department of Defense for the development or production of any new nuclear weapons.

My time is expired.

Senator Pryor.

Senator PRYOR. Thank you, Mr. Chairman.

Senator LEVIN. Senator Pryor, would you yield for 30 seconds?

Senator PRYOR. Absolutely.

Senator LEVIN. I would appreciate it. I must leave.

Secretary Abraham, you have now sent us a letter, relative to the documents that we have asked for relative to the Strategic Petroleum Reserve, stating that you are not going to be furnishing us certain documents. You are asserting a deliberative process privilege, which means then we would have to seek a subpoena in order to determine if there is going to be an executive privilege asserted over those documents.

I am not going to ask a question. I do not want to do that. But would you take a look at the other part of our request, which is that you tell us how many documents are you asserting a privilege over and just the subject of the documents, but at a minimum, how many documents are you asserting a privilege over. If you could let us know in a supplementary letter to that so that we can decide with, obviously, Senator Coleman, who is the chairman of the Permanent Subcommittee on Investigations, whether or not a subpoena would then be issued for those documents, which then sets up the executive privilege.

Secretary ABRAHAM. I would be happy to do that. I do not know the answer, so I will be glad to.

[The information referred to follows:]

By letter dated December 9, 2002, the Senate Permanent Subcommittee on Investigations requested that DOE supply certain documents related to the Strategic Petroleum Reserve. On January 10, 2003, by letter from Mike Smith, DOE's Assistant Secretary for Fossil Energy, we provided to the subcommittee a number of documents in response to its request. On March 19, 2003, and again by letter from Assistant Secretary Smith, we provided additional documents that were still under review when the January 10 letter was sent. In both of the letters, DOE noted that many of the documents being provided to the subcommittee were subject to the deliberative process privilege or contained information that may be protected from public disclosure by the Trade Secrets Act.

The March 19 letter stated that certain documents were not being provided to the subcommittee because they constitute or reflect confidential White House communications, and that for the same reason, the documents would not be provided in response to your own March 4, 2003, letter. After receiving that response, your staff reiterated the request in your March 4 letter that DOE provide a list of documents not being provided to the subcommittee, the subject of each, and the reasons for withholding it. In response, on March 25 our Office of Congressional and Intergov-

ernmental Affairs explained that the March 19 letter already had set forth why DOE has withheld certain documents—they constitute or reflect confidential White House communications. We also explained that the request for a list of those documents originated with the March 4 letter, and, therefore, is a request by you in your capacity as an individual Senator, rather than one from the subcommittee. DOE does not have a list of the type you requested, and creation of logs of withheld documents is not required in administration by agencies of the Freedom of Information Act. Therefore, and again as DOE already has explained to your staff, DOE is not in a position to prepare and submit to you a list of the sort requested in your March 4 letter. For all of these same reasons, we are not in a position to supply to you the information you requested at the March 20, 2003, hearing.

Senator LEVIN. Thank you very much, Senator Pryor.

Senator ALLARD. Senator Pryor.

Senator PRYOR. Thank you, Mr. Chairman.

Secretary Abraham, I am looking at a press release from the NNSA from late last year that talks about the reorganization that is going on there. As I understand it, you are in the process of, mostly through attrition, reducing the staff there by about 20 percent. Is that right?

Secretary ABRAHAM. Yes.

Senator PRYOR. About 20 percent according to the press release.

I have a general concern about that. By the way, I am not opposed to that concept of streamlining and becoming more efficient. I am always for that. But I have a general question in the context of the heightened security we live in right now considering this war on terrorism and all of the possible, potential threats against which you all manage and maintain. How is that going right now, and are you seeing any adverse effects in terms of morale or any gaps or transitional issues that are causing you problems?

Secretary ABRAHAM. Senator, not at this point. I am not saying there are not people who will always be unhappy with changes in the status quo. What we have tried to do in this proposal, I know, is to be very careful about how we would make this transition occur. I can assure you and the committee that no actions will be taken in a hasty fashion or in a fashion inconsistent with the actual security of either the complex or the capabilities of the complex.

One of the challenges which basically confronted me when I became Secretary was the fact that shortly before my arrival, in fact, based on actions I had voted for when I was in the Senate, we had developed the NNSA as a quasi-independent part of the Department. One of its first responsibilities—and that is primarily one for the administrator and now the acting administrator—to develop was a game plan for trying to set this new agency, if you would, or quasi-independent agency, up in a way that minimized the duplication of functions.

One of the frustrations Congress had that led in part to the development of NNSA I think was that there was a sense there were too many layers of decision making, too many management layers. What Ambassador Brooks and before him General Gordon have tried to do is to wrestle with that issue. I can tell you that most of the hearings I had initially were hearings in which people were arguing or asking really for us to do this work quickly because it has been expected by the appropriators as one of the first responsibilities in this area.

We have tried in this reorganization to address it. We have certainly heard from many Members who have had one particular concern or another because of some of the rearrangements. I know there are certainly going to be people in the system who may prefer the old approaches that we had. But we think this represents what Congress asked us to do, which was to do a good faith evaluation of the bureaucracy and try to recommend ways to make it more efficient and streamlined.

Senator PRYOR. Again, I agree completely with those goals. I am 100 percent on board with that. The committee, I think, would like to hear just an assurance that while we are doing this and going through this transition, we are taking care of our business, we are taking care of our mission, and there are no gaps or missed steps that could cause a security problem.

Secretary ABRAHAM. I think we will be able to do the mission better. Our goal really was to try to eliminate some of the bureaucracy that was, in fact, perceived by upper management of NNSA to be hard to work through, too many layers in the chain of command. One of the frustrations that I have and anybody who has served, I think, because I know most of the previous Energy Secretaries, is that there sometimes are problems within the complex, and people say why did that happen. Part of it is because it took such a long time for decisions to move up and down the chain.

But I can assure you, and look forward to working with the committee as we effectuate these changes, that we are not going to do anything that undermines the quality or the timeliness of the work of the Defense Programs or Nonproliferation. I think we are pleased with the progress, in almost every respect, that we have been making on some of the priority items, but it will not be lost on us that, as we make these changes, there is always a threat that we could lose effectiveness. We will do our best and keep you well informed of how we are addressing those.

Senator PRYOR. Thank you.

Mr. Chairman, that is all I have.

Senator ALLARD. Thank you, Senator.

Senator Cornyn.

Senator CORNYN. Secretary Abraham, good to see you this morning. I want to thank you for appearing before the committee today and tell you that I look forward to working with you to ensure that our nuclear weapons facilities receive the proper funding and resources they need in order to carry out their important mission.

I am especially glad to see that we are moving forward with the modern pit facility. I think most Americans would be surprised, as I was when I learned, that we currently do not have a certified capability to produce such an important part of our nuclear arsenal. Indeed, it is supremely ironic that at a time when we are justifiably concerned about the ability of North Korea to produce nuclear weapons, that America cannot.

On that point, the point of the modern pit facility, I want to ask you about the length of time it takes to complete that facility. I am informed that the best estimate is 15 to 17 years. I wanted to ask you why does it take so long and is there anything that we in Congress can do to speed up the process.

Secretary ABRAHAM. Senator, you raise an important point. The duration of time between this point and when we feel we can have a fully operational modern pit facility is a long one because obviously there are inordinate numbers of both safety standards, environmental standards, and others that have to be met along that pathway.

I should, however, note that we believe that this year we will be actually able to produce a pit which can be certified at the work that is being done at Los Alamos. It is a small operation by comparison to what we would envision a modern pit facility to be. We are not going to be without any capability because we will have that, but that is obviously a very small production capability.

As to the specific impediments, I would have to, if I could, respond for the record on that.

Senator CORNYN. That would be very helpful.

Secretary ABRAHAM. I will give you maybe some of the technical explanations that I do not have with me here today.

[The information referred to follows:]

Based on current planning, construction of a Modern Pit Facility (MPF) will start in 2011 and be completed in 2017. Initial production in 2018 will enable the manufacture of plutonium pits for the nuclear weapon stockpile by 2020. This schedule will ensure that the NNSA is able to develop essential pit manufacturing capabilities that are both technologically "modern" and capable of meeting long-term needs of the Nation's nuclear stockpile.

It is also essential that the MPF comply with all environmental standards and evolving security requirements. With an expected cost of some $2 billion to design and construct a MPF, the DOE must provide high confidence that a MPF can meet production goals and also meet all safety, security, and environmental compliance requirements.

The current MPF schedule exercises prudent risk management based on current understanding of pit lifetimes, future stockpile requirements, and other priorities within NNSA. The current schedule for design and construction could be shortened by several years if the MPF project were provided additional resources; however, NNSA will live within its FYNSP and feels that the current schedule is reasonable.

While many regulatory and administrative actions will be required to develop and operate a MPF, there are no specific issues that Congress must address at present to speed up the process.

The other issue here is that there has been some concern about whether or not we should move ahead on some of these projects. The time frame that you have just outlined is a good example of some of the challenges we have in terms of maintaining capability, which has been our priority of trying to establish the capability to do the work that we may or may not in the future be called on to undertake.

Senator CORNYN. Certainly I think we all understand if there are safety or scientific reasons for such a huge length of time. If there are, however, bureaucratic rules or other things that do not make sense that we can address here in Congress, I hope you will let me and the committee know.

Will the modern pit facility that we are talking about have the flexibility such that it will be able to produce a range of pits, possibly even for weapons that currently are not in America's nuclear inventory?

Secretary ABRAHAM. Yes. It is, I think, the objective to have a facility that will have flexibility. We are always in the process of not only thinking about being capable of doing things today but being

able to address challenges of the future. I think the concept behind the facility is to have a design that allows for that flexibility.

Senator CORNYN. Let me jump to another subject in my remaining time—maintenance backlogs at our Nuclear Weapons Complex. Of course, I guess we would all agree that it is critical that we maintain upkeep of our facilities. The Facilities and Infrastructure Recapitalization Program (FIRP) appears to have been successful in halting the growth of the approximately $1 billion maintenance backlog at our nuclear weapons facilities. Unfortunately, the backlog will remain the same or grow if the Readiness in Technical Base and Facilities (RTBF) program, which continues current and future maintenance, continues to decline. In fact, the nuclear weapons may be in the same poor shape in the future when the FIRP ends.

Do you believe maintenance activities are adequately funded at the plants and laboratories in order to eliminate maintenance backlogs in the next 8 years when FIRP ends?

Secretary ABRAHAM. We definitely place a high priority on eliminating that backlog. Two of the challenges which we have tried to address in the more robust budgets, which this administration has been submitting, are the deterioration in the infrastructure generally and the maintenance backlogs that Congress has also identified as a problem. We believe that the funding that we are providing puts us right on the course towards addressing that backlog. It is going to take some time. We recognize that.

It may be at the end of that, as we move down that road, that we conclude that not only do we have to have an ongoing maintenance program that is effective, but that we also find additional challenges that fall into a category of perhaps being defined as backlog by that point.

I would just say that the FIRP does enjoy very substantial amount of support in this budget, and we certainly intend to apply that effectively to the infrastructure problems we have encountered.

Senator CORNYN. Thank you.

Thank you, Mr. Chairman.

Senator ALLARD. Senator Sessions.

Senator SESSIONS. Thank you, Senator Allard.

Secretary Abraham, delighted to have you back in the Senate, if not as a Member, at least as a witness. We appreciate your leadership at the Department of Energy.

To follow up on Senator Cornyn's good line of questioning, let me just drive home that point. Since we closed Rocky Flats in 1989, the United States has not had production capability for the primaries or the pits that are essential for making weapons. I know we will be doing something in Los Alamos for the W88 warhead, but that will only be dealing with a small number of the warhead types.

Let me ask you a few brief questions. Does Russia have the capability to produce these right now? Do they have a production capability in Russia?

Secretary ABRAHAM. Yes. The answer is that they do.

Senator SESSIONS. What about China?

Secretary ABRAHAM. I believe they do, yes.

Senator SESSIONS. North Korea?

Secretary ABRAHAM. We believe that they may have that capability.

Senator SESSIONS. As I understand it, we are the only nuclear power in the world at this point that does not have production capability.

Secretary ABRAHAM. Senator, that is the reason why we strongly support the investments in the development of this facility. We do not do it, however, because of a desire to restart an arms race. I think your point is an important one. Also, however, we just view our current capabilities as being inadequate to meet any future national security challenges we might have, and we feel that restoring capability is the first challenge that we have to undertake. That is why we have worked on the infrastructure programs that were mentioned, and that is why we support the development of pit manufacturing capability.

Senator SESSIONS. It would be hard to say, would it not, Mr. Secretary, that we are somehow destabilizing the world if we are moving up, simply reestablishing the level that every other nuclear power in the world has?

Secretary ABRAHAM. The point I made earlier, which I would just repeat, is that even as we have placed a moratorium on testing, even as we closed Rocky Flats and have not had the capability of developing a pit, and even as we have placed restrictions on the sort of research that can be conducted, it has not dissuaded others from acting.

Obviously, we always take into account the implications of investments we make or the development of capabilities that we might undertake. We take into account its impact on others, but it seems that others are acting in their own best interests and we feel that there is at least a need for us to now really focus on the restoration of our capabilities here.

Senator SESSIONS. What you are then basically saying is we have not been doing that. We have not had that capability, but it has not deterred others from achieving that capability and going forward. In fact, it has no impact whatsoever, if you really think about it. I do not know why it would.

As a matter of fact, it might be an encouragement. It strikes me that if we develop a nuclear policy that freezes our capabilities against any future change or improvement, we have simply set a floor, a goal that any nation that wants to be a peer competitor to the United States should seek and try to achieve, and, at that point, they would have parity with the United States. Psychologically, I do not think we need to do that.

Would you comment on that?

Secretary ABRAHAM. I would just say this: With the end of the Cold War, decisions about reducing the investments in these kinds of capabilities were made and carried forward. I think there is no tangible evidence that those decisions have led others to necessarily follow that model, which I think is your point. But notwithstanding that, what others might do is a consideration.

But I think the first consideration we have is what is in the interest of our national security. That is the first consideration, and the first answer is we believe it is in our interest, as a matter of

national security, to restore these capabilities. We see no behavior that suggests that doing that would have an impact on the rest of the world that was so undesirable as to offset whatever national security advantages are gained from us moving ahead here.

But in the first instance, all of these decisions begin with the question of what does the United States need in the future to be able to maintain its capability, and we think that has to be addressed in the fashion we are talking about.

Senator SESSIONS. I agree. We want to reduce nuclear weapons. That should be our goal. But I do not think in the long run the world will be safer and other nations will reduce their power if we reduce our power substantially and freeze ourselves at that level. I think it is a dangerous policy, and I support your view.

Secretary ABRAHAM. The Treaty of Moscow attempts to reduce the number of nuclear weapons. What we recognize is that the challenges of the Cold War of the latter half of the 20th century may not be the challenges of the 21st century. We have already seen evidence of that, and our belief is that there is a pathway forward here that is important to proceed on. It is not a pathway of immediately developing new weapons or enhancing every weapon, nor is it the pathway of essentially a nuclear freeze. It is a pathway of developing capability to address challenges as they might emerge, and having no capability, at least in our judgment, is not the proper approach. Obviously, the pit facility is an important part of that capability being reestablished.

Senator SESSIONS. I notice my time is up, Mr. Chairman. Will we have a chance to have a short second round?

Senator ALLARD. Yes, I believe so. We have to be sure to get the Secretary out of here by 11:30, but I believe we will have an opportunity to allow you to ask a question or two more.

Senator Graham, you are next. I just want to welcome you here personally to the committee. I know our States have worked closely on issues of environmental management and other issues, and I look forward to continuing to work with you.

Senator GRAHAM. Thank you, Mr. Chairman.

Welcome, Mr. Secretary. I will continue some of the things that Senator Sessions was talking about.

First, though, I want to congratulate you and thank you for appointing Jeff Allison as the site manager at Savannah River. I think we are all going to be very pleased with that, and I appreciate that. Jeff has done a good job and will continue to.

I will change the subject just a little bit. We will get back to pits in a moment. The MOX program is a big deal to the country and certainly to the Savannah River Site, and I appreciate the budget allocation this year.

One of the concerns that I have is the Russian program. Can you give us a little update about exactly where the Russians are with their MOX facility and what is the outlook there?

Secretary ABRAHAM. We feel very positive about recent developments on the Russian side of the plutonium disposition agreement. We have reached an agreement. The Russians have reached a positive decision with respect to the design of their facility. That had been one of the impediments, if you would, or one of the project

lines that had not been moving quickly. That has now been achieved.

The success the President had last year with the development of the Global Partnership initiative to recruit and encourage other members of the G8 to join a partnership to provide $20 billion over the next decade for nonproliferation programs in Russia has changed some of the funding dynamics in a favorable way so that the funding for the Russian program, I think, is on the right track, and we are confident it will be achieved.

Senator GRAHAM. So you feel confident.

Secretary ABRAHAM. Yes. Obviously, a reflection of our confidence is in the budget submission we have made where we have now made a major commitment in this proposal for the beginning of construction in Savannah River.

Senator GRAHAM. You think the Russians are going to keep pace with us, generally speaking.

Secretary ABRAHAM. I believe the Russian program is on its track now in a much more confident direction. It will not be exactly parallel to ours, but now it is moving ahead in a way that is, I think, much improved over where we were a year ago.

Senator GRAHAM. Along the lines of the questions by Senator Sessions, what I am trying to say and I think what we are all trying to say here is that a new pit production facility makes sense to us. I applaud you for going down this road. The sooner, the better for, I think, most of us.

Even though we are trying to appropriately reduce the amount of nuclear weapons available to the former Soviet Union and ourselves in a responsible way, lessening the dangers, I think there is a feeling here among most of us—and I believe the administration too—that you always have to maintain currency and viability. So a pit production facility that can make sure that we have the state-of-the-art, new generation technology to marry up with delivery systems would be something most of us would be supportive of.

I do not think they are contrary goals at all. Trying to modernize your ability to produce and maintain a viable nuclear deterrent force in the future is not contrary to trying to lessen the danger. I applaud you for what you have done and encourage you to continue and hope you bring it to the Savannah River Site. [Laughter.]

Now, Senator Chambliss, my colleague from Georgia, has been very supportive of the site. One thing I think we have had going for us at the Savannah River Site is South Carolina and North Carolina delegations and, recently, good leadership of the Governor's office. I think that now you will have somebody you can work with in Governor Sanford.

I know he is very concerned about hydrogen research and Savannah River has a very rich tradition of hydrogen research. We developed a hydrogen bus several years ago in the Savannah River Technology Center.

Do you have any plans for that center in terms of hydrogen research, and could you give us a little overview of where we are going with hydrogen from the Department's point of view?

Secretary ABRAHAM. Yes. Let me say that we are definitely, as you well know, expanding our hydrogen fuel cell programs. We have not made decisions as to where and when research will be

conducted, but the President has committed a $1.7 billion program over the next 5 years. The design of that program will be focusing on research on hydrogen production, hydrogen storage, and on our capability of effectively reducing the cost of hydrogen fuel cell generation. A variety of programs will now be launched.

The goal is to really, in these next 5 years, jump start the high risk research that needs to be conducted in order for us to really make this transition that we envision to a hydrogen economy, one that would see motor vehicles powered by the fuel cells. We have not made decisions yet as to where all that research will be conducted, but it will obviously be a very robust program.

Senator GRAHAM. I think Savannah River could help you there, and we are definitely interested.

The last thing is the Savannah River Technology Center. We would like to see that expanded. There is a real user-friendly environment in South Carolina and Georgia for such projects, and we are definitely working on a next generation nuclear reactor. That is one area of our energy economy that I think has been neglected. I applaud you for having a friendlier attitude toward nuclear power. It is a non-emitting, safe form of energy, and I think our country has been neglectful in the past to let the technology become stagnant. I would certainly encourage you to look at a research site, Savannah River being one of them, obviously, for the next generation nuclear reactors.

With that, I will appreciate what you are doing for our country.

Secretary ABRAHAM. Thank you, Senator.

Senator ALLARD. Senator Chambliss. I would also like to welcome you to the committee and look forward to working with you too.

Senator CHAMBLISS. Thank you, Mr. Chairman, and likewise.

Mr. Secretary, I want to associate myself with the remarks of my colleague from South Carolina, Mr. Graham. We have worked very closely together on any number of issues at the Savannah River Site, a keen interest. I have expressed it to members of your staff over the last couple of years.

The primary concern that I have about SRS is from a security standpoint. I know we read the threats that exist out there with respect to potential attacks of terrorism occurring at our nuclear power plants. We have two in our State, Plant Vogel and Plant Hatch. Plant Hatch is in my old congressional district, and I have spent an awful lot of time there. I have also spent time at Plant Vogel.

Very honestly, while we are always vulnerable at any site in America, I think that Southern Company and the other owners of those two nuclear power plants have done a good job with respect to securing the facility. With the guidelines coming from Washington regarding construction of those plants, I feel very good about the security of the plant in the event the perimeter lines were breached.

But, from a nuclear waste storage standpoint, I am concerned about security at facilities such as the Savannah River Site. I would like for you to comment to us about what you have done there, what is in this budget, and what do we expect to need to do at sites like the Savannah River Site regarding nuclear storage.

Secretary ABRAHAM. Our cross-cutting, if you would, security proposal in the budget calls for about a $1.2 billion complex-wide security allocation. To use Savannah River as an example, among the sorts of things which we have done to try to enhance security, particularly in the wake of September 11, is to increase access controls, to create an inner-site perimeter, to add armed guards, to extend the buffer zone at the site, and to initiate patrols along the river and guards at the tank farm. Similar kinds of things are going on at other parts of the complex.

As I always tried to make clear when we have these hearings, we have tried to also increase our monitoring and our flexibility to make changes where they are called for. We really believe that the security posture has to be reviewed on a very frequent basis. Our security teams are doing that. We are in the process of basically reexamining our design basis threat on an ongoing basis to make adjustments where called for. If we feel that there is a change that is needed, obviously, we will place that kind of funding priority at the top of any requests we make to Congress, or, if we have to, within the site itself, we will make those adjustments to reprogram money to make sure that any newly emerging concerns can be quickly dealt with.

Senator CHAMBLISS. I appreciate that very much, and folks in our area will be glad to hear that too.

I want to echo also what Lindsey said with respect to Jeff Allison. Bringing him on as site manager has been a good fit, and we look forward to continuing to work with you to bring all the assets we can to the Savannah River Site. Thank you, Mr. Secretary.

Secretary ABRAHAM. Thank you, Senator.

Senator ALLARD. Let us see. Now I am trying to figure out just where we stand as far as committee questions are concerned. I have one question I want to cover. Senator Pryor, do you have any questions?

Senator PRYOR. No.

Senator ALLARD. I know that Senator Sessions has a couple of questions, and then we will wrap it up.

I got cut short on time here, Mr. Secretary, and I want to clarify my question to you.

Secretary ABRAHAM. Please.

Senator ALLARD. I want to give you an opportunity to respond to this question, and then I will explain why I think this is an important question.

Just to clarify the record, does NNSA need an authorization from Congress to proceed with the production of a new nuclear weapon?

Secretary ABRAHAM. A new weapon. I believe I answered in the context of the research on the Robust Nuclear Earth Penetrator, but if it were a new weapon, yes, congressional approval to proceed with production or design of a new nuclear weapon would be required.

Senator ALLARD. I am glad you clarified that because I think that is important for those who have concerns about whether we are moving ahead with concepts on what we do with nuclear weapons. It is an idea of looking at the scientific aspects of a nuclear weapon. When you get right down to it, Congress is going to have to approve production of a new weapon. I think that is an impor-

tant thing for people who may have concerns about just the idea of concept, further scientific investigation of a nuclear weapon, to keep that in mind.

Let me go ahead and move to Senator Sessions. Did you have any more, Senator Chambliss?

Senator CHAMBLISS. No.

Senator ALLARD. Senator Sessions.

Senator SESSIONS. Secretary Abraham, since I have been in the Senate, through various different events, I have had insights into the Department of Energy laboratories—Los Alamos, Livermore, and Sandia. I have been shocked and disturbed by the security breaches, by the mismanagement, and by the problems that have existed there. Some of them have been made quite public. There has been a pattern of misconduct that I think is quite significant over a very long period of time.

I know you have taken it as your responsibility to clean that up, and there are some good steps that have been taken. Frankly, I have serious doubts about whether we ought to maintain these contracts, whether other universities or other entities ought to be given a chance to participate in this $2 billion a year that we routinely give out to Los Alamos Laboratory, for example.

This is a published report. I have this Associated Press article from CNN.com. The headline says this, "Former Los Alamos Official Says Lab Does Not Have 'Criminal Culture'." Well, that is good to have the person say that.

[The information referred to follows:]

The Associated Press

March 12, 2003, Wednesday, BC cycle

SECTION: Washington Dateline

LENGTH: 621 words

HEADLINE: Former Los Alamos official says lab did not have 'criminal culture'

BYLINE: By ROBERT GEHRKE, Associated Press Writer

DATELINE: WASHINGTON

BODY:

The Los Alamos nuclear weapons lab harbors no culture of criminal conduct as two former investigators have alleged, the former principal deputy director told a congressional committee Wednesday.

Joseph Salgado said fired the investigators - Glenn Walp and Steven Doran - because they had provided "incomplete, inaccurate information" to managers at the national laboratory in New Mexico.

The two pressed investigations into suspected mismanagement and misuse of lab money, prompting the House Energy and Commerce Committee to hold hearings while other federal investigations continue.

Salgado acknowledged Wednesday a lab culture where money was, at times, treated as "Monopoly money." But, he said, misdeeds were limited to a few bad apples within the lab.

"It is not a criminal culture, but it is a culture that has to be addressed," Salgado said.

Seventeen Los Alamos employees have been fired or removed from management positions by the university.

Salgado himself was fired Jan. 31 by the University of California, which has managed the lab since its inception 60 years ago during World War II.

The lab's legal counsel, Frank Dickson, and former security chief Stanley Busboom also testified Wednesday morning, denying wrongdoing and disputing assertions by Walp and Doran that senior management knew of widespread corruption.

Walp said Tuesday that Busboom and Tucker were among Los Alamos officials who hindered several investigations into the misuse of hundreds of thousands of dollars worth of lab funds.

Busboom and his deputy, Gene Tucker, have agreed to leave the lab.

The two refused reassignment to lower-paying lab jobs but agreed to take a severance package, said Bruce Darling, senior vice president at the University of California, which runs the lab.

Darling has said the settlement with Busboom and Tucker was worth about a year's salary for each. Busboom had been making $190,000 a year and Tucker $165,000 annually, he has said.

The university rehired Doran to lead investigations and hired Walp as a consultant on its Los Alamos inquiry. But Doran's attorney said Wednesday the deal with the university for the permanent position had fallen through.

At the committee's first hearing last month, Walp said lab managers knew that fraud at the lab had been "greening the valley" around Los Alamos for years, but looked the other way.

Darling said Tuesday the lab is investigating possible disciplinary action against an employee who tried to buy a customized $30,000 Ford Mustang on her lab charge card.

It also is seeking reimbursement for cash advances to an employee who used her charge card to get 11 cash advances at three casinos, Darling said. The employee also bought gas, groceries and electronics with the card, he said.

The case of another employee, alleged to have filed a bogus $1,800 travel voucher, has been sent to local prosecutors for review, Darling said. The employee repaid the money and resigned.

Two others bought hunting and fishing equipment, tools, cameras, coolers, televisions and other items. None of the employees has been criminally charged.

The financial mismanagement as well as problems in the late 1990s involving suspected espionage and misplaced computer hard drives have the Energy Department considering whether to allow bidding on the nearly $2 billion contract to run the lab, held without competition by the university since 1943.

The Energy Department is expected to make a decision before May.

On the Net: Los Alamos National Laboratory: http://www.lanl.gov

Energy Department Inspector General: http://www.ig.doe.gov

House Energy and Commerce Committee: http://energycommerce.house.gov

He said that the investigators, Glenn Walp and Steve Doran, were fired because they had provided incomplete and inaccurate information. These two investigators had pressed investigations into suspected mismanagement of lab money, prompting the House Energy Committee to hold hearings on it.

Salgado, who has now been removed or quit, acknowledged a lab culture where money was at times treated as "monopoly money." This is a head man, the deputy director or principal deputy director of the lab, who said they were treating money as monopoly money. He said, "It is not a criminal culture, but it is a culture that has to be addressed." I would agree.

Seventeen employees have now been fired or removed from management positions by the University of California which manages this. Salgado himself, who was making those statements, was fired in January. Top officials that hindered several investigations into the misuse of hundreds of thousands of dollars in lab funds were identified.

The investigator Walp said lab managers knew fraud at the lab had been "greening the valley" around Los Alamos for years but looked the other way.

They just listed a lot of different problems of individual fraud by employees, and financial mismanagement and problems involving espionage have been known for some time there.

Frankly, it strikes me that the University of California cannot get it through its head that it is not some sort of ordained entity here. Their security situation is difficult for any university, but it particularly appears to me that the University of California has difficulty understanding the security requirements.

Are you looking at that? Will the Department of Energy consider giving the opportunity to other universities who will commit to run the program with integrity and with proper security procedures? Why should some other university not be given the chance?

Secretary ABRAHAM. First of all, when some of the revelations of late were brought to my attention, frankly in the period right before or approximately the same time they became part of the media, we began a very intense series of discussions and meetings with the leadership, the president of the university and others in his leadership team, to try to convey, once and for all, our belief

that when we hire somebody as a contractor to run these labs, that they actually have all of the responsibility that goes with that title. We made it very clear to the university that they had to take action quickly to address not just the specific issues that had emerged, but the broader issues, the broader undercurrent, that made it possible for these advantages to be taken and for this conduct to occur.

They have done a number of things beginning, as I think we made it clear to them, with some changes in personnel. You alluded to that. That had not taken place when, just 2 years before, another set of events took place at Los Alamos. There had not been a change or changes in the security division and other key leadership positions, even though there had been quite obviously problems.

We also have tried, in studying the Los Alamos issues, to share what we are learning about the problems there with all of our labs because a lessons-learned approach, in my judgment, has to be taken from this so that we do not have repetition of these problems in the future elsewhere.

We have also made it clear to the university that unless they meet what I consider to be the responsibilities that they have been paid for, then we will find someone else to do it. To that end, I have asked the Deputy Secretary of our Department, Kyle McSlarrow, and the acting head of the NNSA, Linton Brooks, to complete and provide for me by April 30 an evaluation of the University of California's performance in the wake of our directives, as well as any further recommendations as to the ongoing or future role that the university should have, and I look forward to getting the report.

I think also one of the issues you have touched on is an important one, and that is the question of the nature by which these sorts of contracts are provided. Ours is the only Department, I think, which has Federal research facility contracts that are ever made available for competition. I do not think that happens with other Departments. We do have the flexibility for that competition. Even as we are examining the specific case of Los Alamos, I have appointed a blue ribbon team of outside experts to provide us with a better understanding of and some criteria for future competition, which I think will inevitably be beneficial to the complex.

Senator SESSIONS. I would thank you for that. I would say that from my experience, both at secure briefings and public briefings, that serious security breaches have occurred that have adversely impacted the United States. It is quite clear that we should not be paying to green the valley with Federal taxpayers' dollars, and frankly I see no reason whatsoever that you ought not to give other universities who may be prepared to carry on this program effectively with security and efficiency a chance to bid on this. They do not have a right to have this program forever. I think their behavior has been very poor, and I hope that you will not just talk about it. I hope you will take bids from other universities and see what kinds of proposals they would make before you decide to continue this one.

Secretary ABRAHAM. The other point I would also make is this, that as we examine the situation, we do not intend to have the tax-

payers responsible for mismanagement problems. We believe that if there has been mismanagement, that the cost of that has to be borne where appropriate by the contractor as well.

Senator SESSIONS. It is just part of the university culture, Mr. Chairman. They do not like restrictions. They do not like security. These universities just do not think that way, and if there is not very strong leadership, it tends to be operated like a college campus rather than a highly secure and important defense laboratory.

Senator ALLARD. I think you made some very good comments. Senator Sessions, thank you for your questions.

We have run out of members and questions, Mr. Secretary. I just want to say that I considered it an honor and pleasure to serve with you in the Senate, and I feel like you do a good job here with the Department of Energy. You have had a lot of huge challenges. You have done a great job with them, and I wish you well.

After we adjourn here, I would just like to speak with you a moment, if we might.

Secretary ABRAHAM. Thank you, Mr. Chairman.

Senator SESSIONS. I agree, Mr. Chairman.

Senator ALLARD. I declare the committee adjourned.

[Questions for the record with answers supplied follow:]

QUESTIONS SUBMITTED BY SENATOR PAT ROBERTS

PROLIFERATION CHALLENGES AND DEPARTMENT OF ENERGY NONPROLIFERATION ASSISTANCE

1. Senator ROBERTS. Secretary Abraham, with certain countries moving towards indigenous nuclear programs and possessing weapons of mass destruction expertise and technologies, do you believe the Department of Energy (DOE) may require additional authority to permit DOE nonproliferation programs and assistance to be spent in countries beyond the former Soviet Union (FSU)?

Secretary ABRAHAM. NNSA's nonproliferation activities are central to the Bush administration's December 2002 National Strategy to Combat Weapons of Mass Destruction, which lists "Strengthened Nonproliferation" as a pillar of its approach to reducing proliferation threats. The Department is fully committed to this critical mission; this is reflected in the diversity of our programs to address nonproliferation concerns in Russia, other states of the FSU, and, increasingly, throughout the world.

NNSA's nonproliferation mission and responsibilities set forth in the National Nuclear Security Administration Act are broad enough to encompass our conduct of nuclear nonproliferation activities outside of Russia and the FSU. However, we are seeking in the National Defense Authorization Act for Fiscal Year 2004 to clarify that NNSA has the requisite authority to conduct its international Materials Protection, Control, and Accounting (MPC&A) program not only in the FSU but in other countries where the risks of nonproliferation of weapons of mass destruction, materials and technology also threaten the security of the United States.

2. Senator ROBERTS. Secretary Abraham, specifically, what other countries do you believe would be interested in DOE cooperative nonproliferation programs, and, in particular, which programs do you see participating and why?

Secretary ABRAHAM.

- We are currently pursuing a dialogue on MPC&A cooperation with countries we believe are of particular concern, but we feel it is premature to discuss specifics in detail.
- Many countries outside the FSU are interested in our border detection and Radiological Dispersal Device (RDD) programs—and we hope to expand these programs to those countries where significant proliferation risks exist. Eastern and Central Europe, Southeast Asia, and Africa are regions where we may initiate work. We will target resources to countries where nuclear and radiological material security is most vulnerable, including areas associated with terrorist organizations or activities.

• In addition, DOE/NNSA's export control assistance program has grown from 3 partner countries—Russia, Ukraine, and Kazakhstan—to nearly 20—including the Baltics, the Caucasus, Uzbekistan, Kyrgyzstan, Turkey, Cyprus, India, Pakistan, Israel, Jordan, the United Arab Emirates, Egypt, Malaysia, Thailand, Taiwan, China and Hong Kong. Cooperation is in its infancy in many of these countries. DOE/NNSA's broader geographical focus is consistent with the U.S. Government's interest in strengthening international export controls and securing key transshipment routes that proliferators are known to take advantage of in acquiring the items and technologies needed for their WMD programs.

FISCAL YEAR 2004 NONPROLIFERATION PROGRAM BUDGET REQUEST

3. Senator ROBERTS. Secretary Abraham, the budget request for the DOE nonproliferation programs represents a 30-percent increase above last year's request. This is the first time in the history of these programs that the increase has been so substantial. This increase will primarily be spent on constructing a mixed-oxide facility (MOX) in South Carolina to dispose of U.S. plutonium under the U.S.-Russia Disposition Agreement and the President's new initiative to accelerate nuclear materials disposition in Russia. Would you please tell me why the DOE decided to focus the increase on these two programs this year and what impact these programs will have on U.S. national security?

Secretary ABRAHAM. The MOX facility is an important element of a long-term agreement with Russia under which each country will dispose of 34 metric tons of weapon-grade plutonium by 2025. The increase in funding in fiscal year 2004 is needed to complete the detailed design and begin construction of the MOX facility, contingent on parallel progress in the Russian program. In addition, the President's new initiative to accelerate nuclear materials disposition in Russia will permanently eliminate 1.5 MT per year of highly enriched uranium (HEU). Both of these programs help to prevent the threat of theft or diversion by terrorists or rogue nations of surplus plutonium/HEU in Russia and strongly support the administration's nonproliferation objectives.

• We did not increase our budget request for the International MPC&A Program (which protects materials) because we took that step 2 years ago. The pace of the program is now governed by Russia's ability to absorb assistance, not by U.S. funding. Within the $226 million for MPC&A we have new initiatives to secure radiological materials and to provide security of Russian Strategic Rocket Force warhead sites.

• The Elimination of Weapons-Grade Plutonium Production Program, recently transferred from the Department of Defense, needs no increase now because $74 million in prior year funds are being transferred to us.

• The Russian Transition Initiatives Program has sufficient funds at the $40 million level to work to redirect Russian nuclear weapons expertise to peaceful civilian activities. Increases are not required because we have a number of pending projects.

• Our bottom line: We are proud of what we have done. Our budget request makes clear the administration's strong support for nonproliferation.

RADIOLOGICAL DISPERSAL DEVICES AND THE TERRORIST THREAT

4. Senator ROBERTS. Secretary Abraham, there has been a great deal of discussion about the threats posed by a "dirty bomb" or RDD and the need to secure and account for radiological sources both at home and worldwide. Would you tell me what the DOE position is regarding the threat posed by an RDD versus a device using weapons-grade nuclear materials, e.g. highly-enriched uranium or plutonium?

Secretary ABRAHAM. DOE's priority, in program focus and budget, is on securing weapons grade nuclear materials, which could be used in a nuclear explosion. These materials pose the highest risk to U.S. national security. Still, the threat posed by an RDD is a major concern and increasing resources have been dedicated to reducing this threat as well.

An RDD is often termed a weapon of mass "disruption" rather than a weapon of mass destruction. An RDD attack can produce general panic, health consequences including immediate fatalities, and long-term increases in cancer incidence, long-term denial of property use, and massive economic impact arising from property and facility decontamination needs, disruption of services, and other associated factors. Recent reports have estimated that it would cost almost $20 billion, not including decontamination and other cleanup costs, to recover from an RDD attack in a dense-

ly populated urban setting with a strontium-90 source commonly used in Soviet-fabricated radioisotope thermoelectric generators—Radioisotope Thermoelectric Generators (RTGs). In comparison, the economic costs of natural disasters such as the 1993 floods and Hurricane Andrew range from $5.5 billion to $20.5 billion, respectively.

In contrast, an attack using fissile material in an actual nuclear device could result in damage that is many orders of magnitude greater than that posed by an RDD attack, both in terms of loss of life, infrastructure devastation, and recovery costs.

DOE/NNSA programs aim to address the broad spectrum of threats to United States national security. This includes the priority mission of securing fissile material and reducing the threat from high-risk radioactive sources that could be used in an RDD.

5. Senator ROBERTS. Secretary Abraham, since there are so many radiological sources being used by industry, the medical community, and others, how is DOE prioritizing the threat posed by these sources from an RDD perspective?

Secretary ABRAHAM. Many different organizations are involved in determining what high-risk sources are. DOE and the U.S. national labs, the Nuclear Regulatory Commission, and others have all contributed to the body of work on this topic. We are working with our national laboratories and the NRC to categorize priority sources and to evaluate actions to protect sources of greatest concern. There are many variables to consider, but there is general convergence on which sources present the greatest potential threat, should they be used for malicious purposes.

6. Senator ROBERTS. Secretary Abraham, what sources do you believe should be secured and accounted first and what is DOE doing to address this threat?

Secretary ABRAHAM. DOE will focus efforts on areas where the greatest risk reduction can be achieved at the least cost.

- This past March, at the International Conference on the Security of Radioactive Sources, I announced a $3 million contribution to the International Atomic Energy Agency (IAEA) to assist developing countries in securing their radioactive sources. DOE can provide critical support in the form of technical and financial assistance to enable countries of interest to properly account for radiological material.
- Our initial focus is on seven major isotopes of concern: cobalt-60, cesium-137, radium-226, americium-241, plutonium-238, iridium-192, and strontium-90. Although we are initially focusing our efforts on these seven isotopes, we will retain flexibility to include other isotopes on a case-by-case basis.
- Another aspect of the DOE's approach will focus efforts on countries that are most at risk of having their radiological materials stolen due to social/economic conditions, lax regulatory infrastructure, and/or lack of technical and financial means to correct problems on their own. Working with the Department of State, DOE will continue to analyze risks within the radioisotope lifecycle (production, distribution, use, and disposition), risks within countries, and potential smuggling/transit routes.

RUSSIAN TRANSITION INITIATIVE PROGRAM

7. Senator ROBERTS. Secretary Abraham, the Russian Transition Initiative (RTI) program is designed to address the "brain drain" concern in the FSU by providing commercial partnerships between FSU scientists and U.S. industry and by assisting Russia with the downsizing of its nuclear weapons complex.

I was pleased to learn in your testimony that RTI has obtained over $125 million in matching resources from U.S. industry for commercialization endeavors, or $3 in private sector funds for every $2 in U.S. Government seed funding. Can you explain how and why RTI has been able to attract this kind of private sector investment and how RTI could attract even more private sector dollars?

Secretary ABRAHAM. First, credit for progress in this area should go to the new leadership of the Russian Transition Initiative as well as to the leadership of the U.S. Industry Coalition (USIC).

- Specifically, under this leadership RTI has been able to attract significant resources through its requirement that USG funding be matched at least dollar-for-dollar with cash or in-kind contributions by companies.
- Once invested, many partners are anxious to see their initial effort succeed, so they actually invest more than required in time, capital or equipment. This translates into greater leveraging.

• Recently RTI attracted $96 million in outside funds through five industry partners.
• The support of RTI's investment in upgrades to business and physical infrastructure encourages private commercial support in the form of contracting, distributorships and joint ventures between U.S. and Russian firms, especially in the Russian closed cities. These successes encourage other industry partners to invest. Recently, Russian companies have begun to invest in businesses in the closed cities.
• RTI plans to continue to expand its outreach to U.S. industry partners and is already cooperating with other USG organizations such as the Overseas Private Investment Corporation (OPIC) to help attract private investment.
• Recently a Russian counterpart to the private USIC, the National Industry Coalition, has been formed and will work to expand Russian investment in these cooperative commercial efforts.

8. Senator ROBERTS. Secretary Abraham, how many FSU scientists are involved full time with RTI commercial projects?

Secretary ABRAHAM. Currently, 7,200 scientists, engineers, and technicians in Russia, Ukraine, and Kazakhstan are at work.

Background: Russian Transition Initiatives includes Initiatives for Proliferation Prevention (IPP), which draws its numbers from work in Russia, Ukraine and Kazakhstan. Nuclear Cities Initiative (NCI) only works in Russia. IPP employs about 6,700 scientists and NCI employs 500 scientists and technicians in commercial work, which totals 7,200.

NATIONAL NUCLEAR SECURITY ADMINISTRATION/DOE SUPPORT IN IRAQ

9. Senator ROBERTS. Secretary Abraham, in December 2002, the NNSA redirected $6 million of fiscal year 2003 DOE funds to provide technical support to the IAEA and the United Nations Monitoring, Verification and Inspection Commission (UNMOVIC) for weapons of mass destruction (WMD) inspections in Iraq. To date how much of the $6 million has been spent and what kind of assistance have these funds provided?

Secretary ABRAHAM. In December 2002, $6 million was redirected by NNSA to support WMD inspections being conducted by the IAEA's Iraq Nuclear Verification Office (INVO) and the UNMOVIC, as mandated under U.N. Security Council Resolution 1441.

As of March 1, 2003, approximately $780,000 had been expended to support inspections. These funds have been used to cover costs for technical, proliferation assessments by our national laboratories and for specialized equipment, software, and related technology for use by INVO and UNMOVIC. At this time, it is undetermined what the funding requirements will be in a post-war Iraq.

10. Senator ROBERTS. Secretary Abraham, with the war in Iraq underway and the inspections suspended, what role do you anticipate NNSA will play now or in post-conflict Iraq?

Secretary ABRAHAM. It is well known that the Department of Energy is resident to hundreds of nuclear and other WMD specialists. We fully anticipate that the Department of Defense will call on our experts to assist with the identification and elimination of Iraq's WMD capabilities. Looking further down the road, we anticipate supporting any U.S. Government activities to provide long-term monitoring of Iraqi dual-use facilities and imports and exports. At this time, it is undetermined what the actual role will be in a post-war Iraq.

IRANIAN NUCLEAR PROGRAM

11. Senator ROBERTS. Secretary Abraham, there has been a lot of attention recently on the status of the Iranian nuclear program, which appears to be permitted under the Nuclear Nonproliferation Treaty. In your opinion, based on what you know of the Iranian program, how much of a threat does this program pose compared to other nuclear programs in "axis of evil" countries?

Secretary ABRAHAM. Iran is actively developing a nuclear program and related facilities for, we believe, nuclear weapons purposes. These facilities were undeclared until recently and were declared only under intense international pressure. This program raises very serious questions about Iran's compliance with its Nuclear Non-Proliferation Treaty obligations. It poses serious dangers, and we will work with our

partners in the International Atomic Energy Agency to ensure that Iran remains free of nuclear weapons.

By comparison, it is a long-standing intelligence community assessment that North Korea has already produced one, possibly two, nuclear weapons. If it were to reprocess the currently stored spent fuel, North Korea could have enough plutonium for several more nuclear weapons. A North Korea with nuclear weapons is equally alarming especially since North Korea's program is further along in its development. North Korea has acknowledged having nuclear weapons and has threatened their export. The intent of the U.S. Government is to pursue a multilateral process that leads to the complete, verifiable and irreversible elimination of North Korean nuclear weapons capabilities.

With regard to Iraq, we do not believe that Saddam Hussein ever abandoned his nuclear weapons ambitions. On the contrary, we believe that there are strong indications that right up to the end of the regime, Saddam remained determined to acquire nuclear weapons. In fact, DOE joined most agencies of the Intelligence Community in the 2002 National Intelligence Estimate in the assessment that Iraq had reconstituted its nuclear weapons program.

DOE NONPROLIFERATION BUDGET AND NON-MONETARY OBSTACLES

12. Senator ROBERTS. Secretary Abraham, during my time on the Subcommittee on Emerging Threats and Capabilities, I have noted that U.S. nonproliferation programs require greater cooperation from Russia and other FSU partners to accelerate program goals. With this fiscal year 2004 budget, I believe the real challenge ahead will be non-monetary obstacles, such as access and greater cooperation.

This perspective is echoed in the March 2003 report, *Controlling Nuclear Warheads and Materials, A Report Card and Action Plan,* just completed by Harvard and the Nuclear Threat Initiative:

> the available budgets are now large enough, and the non-monetary obstacles substantial enough, that simply adding money to existing programs, while making no other changes, would in most cases do little to strengthen or accelerate these efforts.

What is your view of this assessment, and how is the DOE addressing the challenges posed by "non-monetary obstacles" for the nonproliferation programs within DOE?

Secretary ABRAHAM. I agree with the assessment that non-monetary obstacles such as access and cooperation now limit our nonproliferation activities. Still, despite these obstacles, we continue to make solid progress in a number of areas.

DOE's senior management meets frequently with Russian counterparts in the Russian Ministry of Atomic Energy (MinAtom) to review progress in overcoming obstacles. We have developed a "scorecard" for maintaining the visibility of all NNSA/MinAtom cooperation to ensure that it stays on track. The senior management of both agencies reviews it periodically. Also, as Secretary of Energy, I periodically have direct discussions with Russian Minister of Atomic Energy Rumyantsev to resolve issues such as access that thwart progress of nonproliferation programs.

For example, in the area of MPC&A, we have made significant progress with MinAtom on access issues, especially at "civilian" facilities with less stringent access restrictions imposed by MinAtom. In fact, we are finishing work at the first large MinAtom fuel processing facility, the Luch facility, this spring. Luch was the site of the attempted theft of highly enriched uranium by a facility insider several years ago. We expect to complete at least two additional large MinAtom facilities next year (Novisibirsk and IPPE in Obninsk). Consequently, this part of our program is in the process of transitioning to the sustainability phase as upgrades are completed.

Another area in our work that periodically confronts access difficulties is the Russian Transition Initiatives program. Since September 2002, the Nuclear Cities Initiative has enjoyed access to all three of the closed cities with which it works, without any problems. Under the Implementing Arrangements on Access, negotiated in 2002, work continues to proceed and access is being granted. One trip to Sarov took place recently, and trips appear to be approved as requested. That said, access is not unlimited. NCI and MinAtom do negotiate specific numbers of visits to the cities per year, and NCI agrees to operate under that ceiling. Requests for amending the number of visits to a city can be made by an exchange of letters every 6 months.

QUESTIONS SUBMITTED BY SENATOR WAYNE ALLARD

CONGRESSIONAL AUTHORIZATION

13. Senator ALLARD. Secretary Abraham, to help clarify the record, is further congressional authorization required before the DOE–NNSA can begin design or production of a new nuclear weapon?

Secretary ABRAHAM. Neither full scale development nor production of new nuclear weapons could proceed unless Congress authorizes and appropriates the necessary funds. Further, section 3143 of Public Law 107–314, the Fiscal Year 2003 Defense Authorization Act, requires the Department of Energy to request funds in the President's budget for the development or production of a new nuclear weapon. The budget entry is specified as a single dedicated line item for each such activity that is in phase 3 or higher for new nuclear weapons, or phase 6.3 or higher for weapons refurbishment. These phases correspond to final design work phases and onward.

14. Senator ALLARD. Secretary Abraham, is further congressional authorization required before DOE–NNSA can begin design or production of a precision low yield nuclear weapon?

Secretary ABRAHAM. Yes. Congress would have to repeal the prohibition against research and development of new low yield weapons, Section 3136 of Public Law 103–160, as the administration has requested. Additionally, design or production of a precision low yield nuclear weapon would be subject to the requirements of Section 3143 of Public Law 107–314, that apply to development and production of new nuclear weapons and to weapon modifications, if such modifications are in order to meet new military requirements.

15. Senator ALLARD. Secretary Abraham, is further congressional authorization required before DOE–NNSA can begin production of the Robust Nuclear Earth Penetrator?

Secretary ABRAHAM. Neither full scale development nor production of the Robust Nuclear Earth Penetrator could begin unless Congress authorizes and appropriates the necessary funding.

QUESTIONS SUBMITTED BY SENATOR CARL LEVIN

STRATEGIC PETROLEUM RESERVE FILL SCHEDULE

16. Senator LEVIN. Secretary Abraham, in the spring of 2002, the DOE determined to no longer permit deferrals of scheduled deliveries of oil to the Strategic Petroleum Reserve (SPR). This decision, which was publicly announced by the Secretary of Energy on April 9, 2002, was a reversal of the practice employed during 2000 and 2001, which allowed deferrals of SPR deliveries when oil prices were rising or oil supplies were tightening, in exchange for deliveries of additional amounts of oil at a later time.

On March 5, 2003, I released a report prepared by my staff on the Permanent Subcommittee on Investigations (PSI) of the U.S. Senate Committee on Governmental Affairs, showing how this new policy to fill the SPR, regardless of the price of oil, helped to increase oil prices without increasing overall U.S. oil supplies.

Documents provided by DOE indicate that, during the spring and summer of 2002, DOE's SPR office repeatedly urged the Department to return to the previous fill policy. For example, in a document dated June 11, 2002, the SPR office advocated restoring the previous policy of allowing deferrals of SPR deliveries as follows:

> Since the prior business model for oil acquisition is financially superior to the current model, works counter to economic cycles, is familiar to contractors, is favored for logistics reasons, is in tune with legislative mandates, and allows the government to take positive action when consumers are distressed by oil prices, the SPR office recommends reconsideration of the decision not to renegotiate delivery dates of SPR oil.

The document also states: "Champions of the current policy are unknown and there is no known record laying out arguments in support of a rigid fill schedule."

Please identify the "champions" who advocated adoption of the new SPR fill policy.

Secretary ABRAHAM. It is my responsibility to determine SPR oil acquisition policy and approve implementation strategies. I seek the advice of DOE staff and other members of the administration as circumstances dictate.

17. Senator LEVIN. Secretary Abraham, please provide the arguments made in the spring of 2002 in support of a "rigid fill schedule."

Secretary ABRAHAM. In the spring of 2002, I determined to take deliveries as contractually scheduled in order to fill the SPR at a reasonable rate for the purpose of increasing our energy security. Our policy towards SPR fill is not rigid. Had circumstances been different, we had and have the flexibility to defer or otherwise modify fill schedules.

18. Senator LEVIN. Secretary Abraham, please explain why the identity of the proponents of the new SPR fill policy and the arguments they used to advocate this new policy were not disclosed to the career staff of DOE's SPR office.

Secretary ABRAHAM. In large organizations, decisionmakers are supported by numerous experts and advisors. Ideally, information flows in both directions during the course of resolving issues. As a practical matter, given time pressures and other factors, this does not always occur.

19. Senator LEVIN. Secretary Abraham, please confirm whether you were the individual who made the final decision, publicly announced on April 9, 2002, not to permit any more deferrals of deliveries of oil into the SPR.

Secretary ABRAHAM. I did make the decision to take deliveries as contractually scheduled, as I announced on April 9, 2002.

SPR OIL DEPOSITS/OIL PRICES

20. Senator LEVIN. Secretary Abraham, in response to the PSI minority staff report, the Deputy Secretary of Energy issued a statement noting that the average daily deposit of oil into the SPR in 2002 represented only 0.14 percent global daily supply, and a DOE spokesman was quoted as saying the amount of oil put into the SPR is "a drop in the bucket."

In contrast, however, career staff in DOE's SPR office have written that the SPR daily fill rate can have a significant impact upon the price of oil. One memorandum prepared by the SPR office in the spring of 2002, for example, explicitly refutes claims that SPR deposits involve "inconsequential volumes" of oil:

> [I]f the SPR inventory grows and OPEC does not accommodate that growth by exporting more oil, the increase comes at the expense of commercial inventories. Most analysts agree that oil prices are directly correlated with inventories, and a drop of 20 million barrels over a 6-month period can substantially increase prices. (Memorandum titled, "Options for Filling the Strategic Petroleum Reserve," reprinted in PSI minority staff report, Appendix 3, page 246.)

What are your views regarding whether the SPR oil deposits in 2002 and 2003 affected U.S. oil prices?

Secretary ABRAHAM. It is administration policy to use the SPR only in emergency supply situations or for national security reasons, not to influence market prices. However, price is determined by the interplay of supply and demand. On the demand side, the acquisition of oil for the SPR is one of many demand variables. The SPR acquisition rates during all of 2002 were modest, especially when compared to marginal demand associated with weather extremes or the decline of demand from the airline industry in the wake of the September 11, 2001, disaster.

Demand fluctuations overall during 2002, however, were small compared with volatility of supply. Delays in renewing the Iraqi oil-for-food program would periodically reduce supply by 2 million barrels per day. Hurricanes in the Gulf of Mexico caused production platforms to be evacuated in the fall of 2002, and a strike in Venezuela starting on December 1, 2002, stopped over 3 million barrels per day of production. Most importantly, the Organization of Petroleum Exporting Countries (OPEC) maintained excess production capacity of 4–5 million barrels per day through most of 2002. To the extent prices were volatile during 2002, that characteristic of the market was driven by fluctuations in supply and adherence to production quotas by member countries of OPEC, not by SPR oil acquisition.

High prices during the first quarter of 2003 were associated with the Venezuelan strike and concern for war in Iraq. However, the decision by OPEC to increase its quota in 2002 and the fulfilled promise of extra production by Saudi Arabia in 2003 reduced prices substantially. SPR oil acquisition in 2002 has been minimal and has had no influence on prices.

21. Senator LEVIN. Secretary Abraham, if SPR oil deposits are too inconsequential to affect oil prices, please explain why DOE decided to defer scheduled deliveries of oil to the SPR for the past several months.

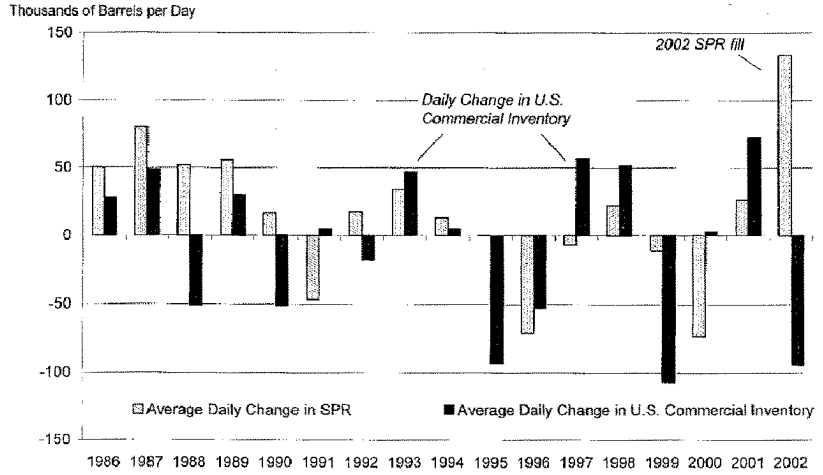
Secretary ABRAHAM. Starting on December 1, 2003, Venezuelan oil production was curtailed due to a general strike. Venezuela is one of the largest sources of U.S. petroleum imports, and due to its location the shipping time for Venezuelan oil to reach the United States is only a few days. Virtually all of the world's excess production capacity is in the Persian Gulf, replacement oil for the lost Venezuelan oil was 40 days away from the United States. Once it became apparent that the Venezuelan strike would be prolonged, more oil was produced and shipped from the Persian Gulf region for the U.S. Gulf Coast. Nevertheless, due to the lengthy transit time, it was prudent to temporarily reduce SPR demand for oil in the Gulf Coast in order not to aggravate what was a transient regional problem.

SPR FILL RATE AND THE U.S. OIL SUPPLY

22. Senator LEVIN. Secretary Abraham, the attached chart shows, using DOE/Electronics Industry Association (EIA) data, that U.S. crude oil supply and demand are closely balanced. It shows that, since 1986, the average daily change in U.S. commercial inventories has been only about 50,000 barrels per day, and the largest daily change occurred in 1999, when U.S. commercial inventories lost an average of 110,000 barrels per day over the course of the year.

Oil Supply and Demand in U.S. Are Closely Balanced

-- On Average, U.S. Commercial Inventories Vary by About 50,000 Barrels/Day
-- Removing 135,000 Barrels/Day From the Market Affects Commerical Inventory Levels



Source of data: Table S2, EIA Petroleum Supply Monthly, 2/03
Chart prepared by U.S. Senate Permanent Subcommittee on Investigations Minority Staff, March 2003

In light of these 17 years of data, what are your views regarding the extent to which an SPR daily fill rate, which, over the course of 2002, took an average of 135,000 barrels per day of crude oil out of the U.S. commercial marketplace, affected available commercial oil supplies and U.S. commercial oil inventory levels?

Secretary ABRAHAM. In general, it is in the interest of the world's exporting countries with excess production capacity to match production to demand in a price range that allows sustained economic growth. Exporting countries are indifferent to the sources of demand, whether for industry, transportation or strategic stockpiling. Consequently, as long as SPR fill is moderate and consistent it probably has no more than transient impacts on commercial inventories.

23. Senator LEVIN. Secretary Abraham, would you agree that an SPR fill rate that may be insignificant if it lasts for a short period of time, such as a few days, may become significant if continued over a longer period of time, such as an entire year, if overall oil supplies do not increase during that period?

Secretary ABRAHAM. If supply were inflexible and other sources of demand for oil were inflexible, then by definition any marginal demand increase must come out of inventory. Whether a change in commercial inventory is significant or not will depend upon whether industry can meet commercial demand. During 2002–2003, despite SPR fill, the Venezuelan strike, an extremely long winter, the disruption of Nigerian exports, and the war in Iraq, industry has been able to satisfy all demand for refined products.

IMPACT OF AN OIL RELEASE FROM THE SPR

24. Senator LEVIN. Secretary Abraham, in an interview broadcast on National Public Radio on March 7, 2003, Dr. Philip Verleger, a leading oil economist, was asked why U.S. oil supplies were so low. Dr. Verleger replied:

> Venezuela is one reason, but as a U.S. Senate Committee pointed out Wednesday, the U.S. Government was filling the Strategic Petroleum Reserve last year as prices were rising. By my estimate, had the U.S. Government not filled the U.S. Strategic Petroleum Reserve or returned the 20 million barrels they'd put in back to the market, prices right now would be around $28 a barrel instead of $38 a barrel and gasoline prices might be 25 to 35 cents lower.

Dr. Verleger has just released an analysis with similar findings. This analysis, which is attached, finds that modest releases of oil from the SPR last December and January to compensate for the loss of oil from Venezuela would have increased U.S. commercial inventories enough to have kept crude oil prices as much as $9 per barrel lower, and gasoline and heating oil prices almost 30 cents lower. What is DOE's reaction to Dr. Verleger's analysis?

Measuring the Economic Impact of an Oil Release from the Strategic Petroleum Reserve to Compensate for the Loss of Venezuelan Oil Production

Philip K. Verleger, Jr.
Senior Fellow
Council on Foreign Relations
March 20, 2003

This note reports estimates of the impact of a release from the US Strategic Petroleum Reserve (SPR). The estimates are made using a model of the forward price curve that links crude oil prices to inventory levels, speculative activity, and market expectations. The model has been developed to examine a wide array of alternative market outcomes using "what if" scenarios and is now being licensed to several firms that trade or finance oil.

Here, I examine in retrospect the possible impacts of releasing SPR oil immediately to compensate for the disruption of Venezuelan crude exports. I show that releases large enough to prevent US inventories from declining would have kept crude oil prices $9 per barrel lower. I also show that gasoline and heating oil consumers might have saved as much as 28 cents per gallon on their purchases. Then I examine the potential outcomes of releasing SPR oil at this time.

The failure to use the SPR in a timely manner to offset the Venezuelan disruption has left the nation's commercial petroleum stocks dangerously low just when the country is about to enter war. The failure to use the SPR promptly has also caused commercial participants to take steps that have substantially increased the risks involved in using the SPR now. Today, releasing stocks on the eve of war could create a very serious financial disruption — a disruption that could have been avoided had the SPR been used when the strikes began.

Background

Venezuelan oil workers went on strike on December 1, 2002, and oil production from the country plummeted quickly. Total output in December declined from 2.9 million barrels per day

(MBD) in November to 800 thousand barrels per day (kbd) in December and then to only 575 kbd in January.

US refiners suffered the most from the Venezuelan strike. More than half of Venezuelan oil exports are shipped to the United States. More than three quarters of Venezuelan exports may reach the United States once transshipments from offshore refineries are included. When the strikes took place, other countries responded by increasing production, but it took time for the replacement oil to reach the United States. Meanwhile, stocks fell.

Unfortunately, the strikes occurred when US inventories were already low. At the end of November 2002, private stocks in the United States totaled 288 million barrels, 20 million barrels fewer than in the previous November. Inventories fell further during December, January, and February.

Oil prices rose as stocks dropped, following a well-understood and well-documented pattern. Commodity prices tend to decline when inventories increase and rise as stocks fall. Since the end of November 2002, the spot price of WTI crude has risen from $27 to $37 per barrel. The rise in crude prices added at least 24 cents per gallon to the price of gasoline and heating oil. As I indicate below, other events associated with the crude price increase added a further 9 cents per gallon to product prices.

As the magnitude of the strike became evident, many called for release of SPR oil. These pleas were rejected by the Bush administration on the basis that the SPR is reserved for addressing shortages. The question here is "how would prices have developed had SPR oil been made available promptly in response to the Venezuelan strikes?" Answering this question requires a model of the forward price curve of oil.

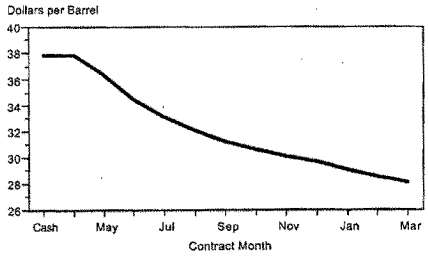
The Forward Price Curve

Analyses of commodity market behavior focus on forward price curves. Modeling these curves provides a method for linking underlying fundamental factors such as supply, demand, and inventories for those commodities governed by very inelastic price elasticities of demand and

supply. For items such as oil, the forward price curve is the melody and spot prices but a grace note.

Figure 1 shows part of the forward price curve for WTI on March 7. For convenience I show only the spot price and twelve future months. From Figure 1, one can observe that the cash price for crude was $37.77 per barrel. One can also observe that one could buy oil for delivery in the months from April 2003 to March 2004. The graph shows that March 2004 crude sold for $28.04 per barrel.

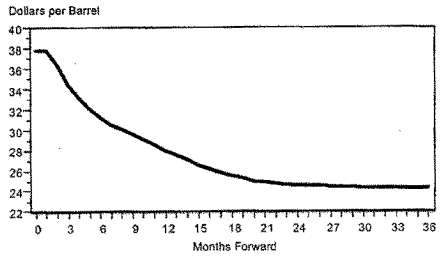
Figure 1
Illustrative Forward Price Curve for 3/7/03



Source: PKVerleger LLC.

The actual curve extended out six years to December 2009. Crude for delivery in 2009 was quoted at $24.21 per barrel. Figure 2 shows a three-year version of the same curve. In this graph, the forward months are numbered and not named, beginning with 1 for the first forward month (April 2003) and ending with 36 for the three-year-forward crude (March 2006).

Figure 2
Illustrative Three-Year-Forward Price Curve for 3/7/03

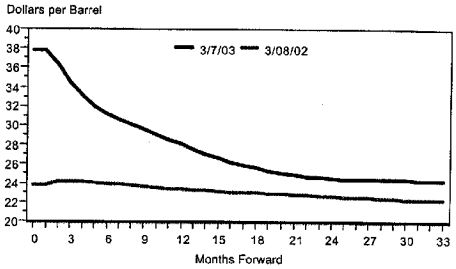


Source: PKVerleger LLC.

Economists recognize that the forward price curve will move as market conditions change. The principal determinants of the curve's shape are inventory levels and, to a lesser extent, speculative activity (speculators are also referred to as scalpers in the commodity literature). Here we focus on the role of inventories.

Figure 3 compares the shape of the forward curve on March 7, 2003, with the curve observed on March 8, 2002. The difference is noticeable. In March 2002, three-year-forward crude sold for $22.20 per barrel. In March 2003, three-year-forward crude sold for $24.40. The big difference, though, is observed in the spot price. A year ago, one could acquire spot crude for $23.70. On March 7, 2003, spot crude cost $37.77.

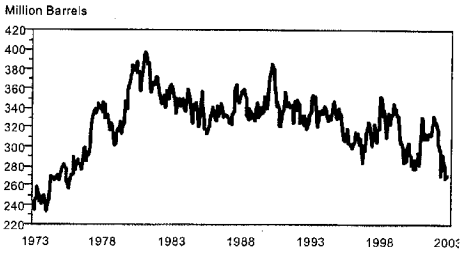
Figure 3
WTI Forward Price Curves for 3/7/2003 and 3/8/2002



Source: PKVerleger LLC.

Inventory levels explain the difference in spot prices between March 2002 and March 2003. In March 2002, tanks at US refineries held 317 million barrels. Twelve months later, they held only 271 million barrels. As can be observed from Figure 4, crude oil stocks are near a thirty-year low.

Figure 4
End-of-Month Private Crude Inventories in the United States — 1973 to 2003



Source: US DOE.

The model of the forward price curve I developed captures the relationship between inventories, market expectations, and speculation on the shape of the forward price curve. The methodology underlying the model is based on the prior research of Working (1949), Brennan (1958), Williams (1986), and Wright and Williams (1991). These authors have developed models that link price spreads (differences between spot and forward prices) to inventories. I developed a model that predicts spreads. I begin at the right side of the forward price curve with the two-year-forward price and then predict each of the spreads, adding them one at a time until I have completed the curve.

I show in Figures 5 and 6 (page 6) the model's prediction of the forward price curve for March 8, 2002, and March 7, 2003. The predictions fall close to the actual curves.

Measuring the Impact of an SPR Release

A release of oil from strategic reserves would affect the shape of the forward price curve in three ways. First, it would lead to higher inventory levels unless oil-exporting countries cut production.[1] Second, it would change expectations regarding future prices. Lastly, release of strategic stocks would alter speculator expectations.

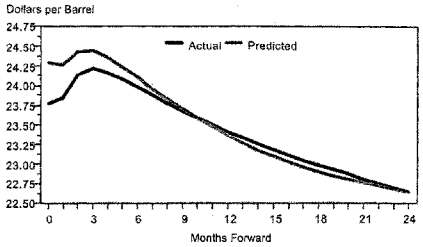
Start with the impact on stocks. Stocks increased by almost 12 million barrels in the fall of 2000 when the Clinton administration sold 30 million barrels from the SPR to ease market pressures. A similar response would have been observed had the Department of Energy (DOE) released stocks when production in Venezuela collapsed. The output loss from Venezuela was 2.2 MBD in December and 2.3 MBD in January. The aggregate loss of supply was 140 million barrels. The US probably lost around 90 million barrels directly and indirectly, although some of the supplies were replaced by exports from other countries. Reported company stocks dropped by 18 million barrels from the time the strike began — and from much higher levels earlier in the year.

[1] The threat that producing countries might retaliate to a stock release has always constrained energy policy officials. However, the constraint is more imaginary than real as long as releases are made to stabilize prices. For example, Saudi oil minister Naimi characterized the US decision to release strategic stocks at a time of high prices in September 2000 as similar to OPEC's decision to adjust production to keep prices within a range. He noted, "There really was no harm to a release" as long as the purpose was to steady prices. (*Argus Global Markets*, October 8, 2000, p. 3)

The strike also affected expectations regarding future prices. In general, expectations are measured from the price quoted on the futures exchange. The chairman of the Federal Reserve Board has said he watches the four-year-forward price. Others watch the one or two-year-forward price. For the purpose of this paper, the two-year-forward price probably provides a good indication of the expectations of market conditions after the second Gulf war ends.

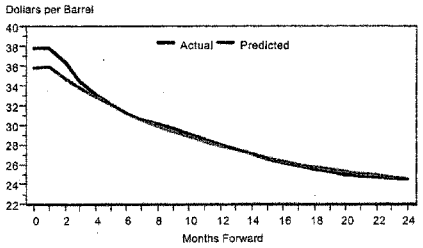
Between the end of November 2002 and March 7, 2003, the two-year-forward price rose from $23.10 to $25.55 per barrel. A year earlier, the same forward price was $21.60.

Figure 5
Actual and Predicted Forward Price Curves for 3/8/2002



Source: PKVerleger LLC.

Figure 6
Actual and Predicted Forward Price Curves for 3/7/2003



Source: PKVerleger LLC.

Finally, the shape of the forward price curve is determined by speculation. At the end of November 2002, speculators were inactive. However, they became very active buyers of oil once the strikes began and the DOE indicated it would not use strategic reserves.

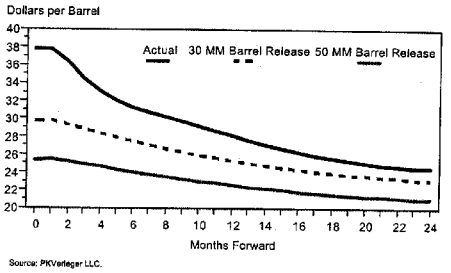
These factors were reflected in two separate simulations of the forward price model.

In the first simulation, I assumed that the DOE had responded to the strikes by releasing 15 million barrels per month in December and January to compensate for the lost Venezuelan crude. I also assumed that the release would have changed expectations of the two-year-forward price, which was assumed to remain at $22.15 per barrel.

In the second simulation, I assumed that the DOE had responded to the loss of supply from Venezuela by releasing 50 million barrels per month. This larger release was assumed to depress expectations from $23.15 to $21 per barrel.

The results of the two simulations are shown in Figure 7. In the first case, spot prices drop from $37 to $30 per barrel. In the second, prices decline from $37 to $25 per barrel. The results confirm that proactive action would have cut spot prices by between $8 and $13 per barrel.

Figure 7
3/7/03 Forward Price Curve v. Curves Likely to be Observed if DOE Released 30 or 50 Million Barrels in Response to Venezuelan Strikes



Source: PKVerleger LLC.

Impact on Product Prices

Ordinarily one calculates the impact of lower crude prices on product prices by dividing the change in crude prices by 42 because there are 42 gallons in a barrel. Thus, one might predict that retail prices would be reduced by between 20 and 32 cents per gallon. However these are not ordinary times.

Many refiners today purchase protection against a sudden drop in crude prices because they do not want to be caught selling gasoline manufactured from $40 per barrel crude when prices have dropped to $20 per barrel. The risk of such declines increases as crude prices rise because the

SPR holds more than 600 million barrels of crude — twice as much as the private sector. Thus, companies must become more concerned about a sudden drop in prices as prices escalate.

The weaker financial refiners created by FTC-mandated divestitures (Tesoro, Frontier, Valero, and, to a lesser extent, Premcor) are particularly vulnerable at times of high prices. To maintain their minimal credit ratings and to obtain letters of credit, they must hedge.

Refiners can hedge against higher crude prices by purchasing puts with strike prices equal to or near the price of the crude acquired.[2] The cost of these puts must be added to the cost of crude. During 2002, the cost of such insurance ran around 2 cents per gallon. However, the cost has increased sharply with the rise in crude prices. At the end of February, the cost was 10 cents per gallon (see Table 1).

The increase in the cost of purchasing puts from November to March represents a second cost associated with the failure to use the Strategic Petroleum Reserve. I put the incremental cost at 6 to 9 cents per gallon.

Table 1. Cost of Hedging Crude Oil Purchases Using Puts — Implied Cost of Hedging a Barrel of Crude Purchased on the Fifteenth of the Month for Approximately 40-45 Days

	Put Price ($/bbl)	Put Price (¢/gal)
Jan 2002	0.95	2.3
Feb 2002	1.02	2.4
Mar 2002	1.22	2.9
Apr 2002	1.29	3.1
May 2002	1.69	4.0
Jun 2002	1.18	2.8
Jul 2002	1.10	2.6
Aug 2002	1.51	3.6
Sep 2002	1.13	2.7
Oct 2002	0.90	2.1
Nov 2002	1.71	4.1
Dec 2002	1.31	3.1
Jan 2003	2.32	5.5
Feb 2003	4.19	10.0

Source: PKVerleger LLC.

Risks Associated with Using the Strategic Reserve Today

The failure to use the SPR in December or January has resulted in large increases in crude and product prices. These increases have also caused refiners and crude producers to purchase large amounts of price protection in the form of puts. These puts now make it difficult to release strategic stocks because such a release could create a financial crisis.

The financial risk is created because the firms that write puts sell futures to hedge their position. The number of futures sold will vary depending on the difference between the price of crude and the strike price of the put. As oil prices fall, the firms that have written the puts will sell more

[2] A put is effectively an insurance policy. If prices fall below the strike price, the writer of the put pays the buyer the difference between the strike price and the actual price. For example, if a refiner purchased a $36 per barrel put and prices fell to $30, it would be paid $6 per barrel.

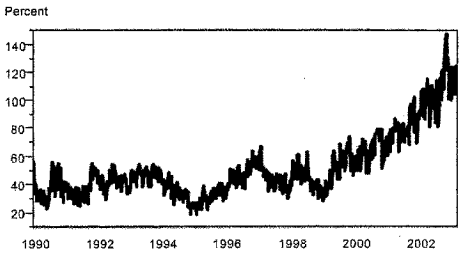
futures, putting downward pressures on oil prices. This activity, referred to as "dynamic hedging," could cause an oil price collapse. This potential has been realized in other markets. For example, the October 1987 stock market collapse occurred in large part because firms had written "portfolio insurance." The firms that had written puts on the stock market started to sell futures when stock market prices fell. Their sales caused stock prices to fall further.[3]

Sales of SPR oil could precipitate a similar collapse under circumstances where

- The number of puts outstanding relative to the size of the futures market was large and
- The sales pushed the writers of puts close to price levels that would force the sales of large numbers of futures.

Today we do not have precise information on the number of puts outstanding because most transactions are done directly with banks or financial institutions and are not reported. These are called over-the-counter or OTC options. However, the limited information available reveals that the number of puts sold on the primary regulated exchange, the New York Mercantile Exchange, is large relative to open interest in futures markets. This can be seen from Figure 8, which shows open interest in put options as a share of open interest in crude futures. One

Figure 8
Put Options as a Share of Total Open Interest in Crude Oil Futures Contracts



Source: PKVerleger LLC.

[3] Sales of futures contracts can, under certain circumstances, create rapid price increases or decreases if there is an absence of counterparties willing to take the opposite side of the transaction. The problem occurs because futures markets are bilateral contracts: for every seller there must be a buyer. Prices can drop to zero or very low levels if everyone is convinced that prices are moving down. This creates a problem for firms that have written put options because the financial strategies they use assume they will be able to sell more futures as prices fall. If there is no market, they could face financial ruin. It was precisely such a process that brought down Long Term Capital Management (see Lowenstein, 2000, especially Chapter 8).

needs to be concerned, however, if one assumes there are as many OTC options outstanding as NYMEX options and if one assumes that the writers of OTC options will sell futures.

One also needs to worry because most OTC options are written at oil prices above $30 per barrel. As can be seen from Table 2, more than half the April, May, and June options are written for strike prices below current prices but above $30. This risk of financial collapse was not a major concern at the time of the first Gulf war because energy derivatives represented a modest share of world oil production and consumption. The situation is different today. Outstanding derivatives for crude oil and products now may equal two or three years of production. Thus, it is entirely possible that the financial losses associated with a drop of oil prices into the teens could exceed $200 billion.

Table 2. Cumulative Open Interest in NYMEX Puts on 3/7/03 by Contract and Strike Price as a Percentage of Open Interest in the Underlying Futures Contract

Strike Price ($/bbl)	April (%)	May (%)	June (%)
37.50	2.4	0.0	0.1
35.00	12.0	7.8	0.1
32.50	22.6	19.0	20.0
30.00	47.9	59.2	50.3
27.50	67.6	88.1	77.5
25.00	83.0	121.9	117.2
22.50	98.4	138.0	161.2
20.00	111.6	161.8	201.8
17.50	115.3	171.0	218.0
15.00	120.9	174.9	224.5
Note: Settlement of Underlying Futures on 3/7/03 ($/bbl)	37.78	36.35	34.43

Source: PKVerleger LLC.

This suggests that the Department of Energy must use great care in structuring its release of SPR oil. The DOE could easily trigger a rapid, "delta margining" collapse in crude oil if too much oil were put on the market when the war starts.

To address this risk, the Department of Energy officials and their colleagues at the International Energy Agency need to adopt a program of small but frequent sales from strategic stocks. The risk of causing a serious drop in crude prices could be moderated by announcing a first sale of, say, 20 million barrels and then declaring that a second, third, and possibly fourth sale could follow if conditions in world markets required such an action.

Conclusion

Officials at the Department of Energy missed a golden opportunity to moderate the recent increase in oil prices when they failed to compensate for the strikes of oil field workers in Venezuela. Had they acted, gasoline prices would have been as much as 25 to 40 cents per gallon

lower. The hands of DOE officials are now tied, though, because a release of large amounts of oil at this point could trigger an unwanted price collapse.

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Secretary ABRAHAM. There is no question that there is enough inventory in the Strategic Petroleum Reserve that the Government could influence short-term oil prices dramatically if it chose to do so. However, in the long run, allowing regular Government market interventions would have a detrimental impact on market discipline; marginal production would fail to materialize; consumers would not constrain their energy use; and Government competition would discourage private sector inventory accumulation. It is the policy of this administration that a free market best allocates resources, and that the SPR will only be used in the event of a severe energy supply interruption of an emergency nature.

SPR DEFERRAL POLICY

25. Senator LEVIN. Secretary Abraham, in light of its decisions over the past few months to defer scheduled deliveries of oil to the SPR, please describe DOE's current SPR deferral policy, including whether it has abandoned the no-deferral policy

announced in the spring of 2002; whether it has restored the prior policy of allowing SPR deferrals when oil prices are rising or oil supplies are tightening, in exchange for deliveries of additional oil at a later time; or whether it has developed new criteria to determine when to grant a request to defer a scheduled SPR delivery.

Secretary ABRAHAM. The policy of the administration is to fill the SPR deliberately and cost-effectively, principally through royalty-in-kind transfers, to its capacity of 700 million barrels by the end of 2005. The Department of Energy will consider all of the objectives contained in the Energy Policy and Conservation Act for consideration during the acquisition process. Specifically, the Department will seek to minimize cost, minimize the Nation's vulnerability to a severe energy supply interruption, minimize impacts on supply levels and market forces, and encourage competition in the petroleum industry. It will be our policy to transfer approximately 130,000 barrels of crude oil per day from the Department of the Interior to the Department of Energy until Reserve capacity is filled. If continuing SPR fill impinges on these statutory objectives, we will consider deferring deliveries.

QUESTIONS SUBMITTED BY SENATOR EDWARD M. KENNEDY

BERYLLIUM-EXPOSED WORKERS EMPLOYED BY DEPARTMENT OF ENERGY VENDORS

26. Senator KENNEDY. Secretary Abraham, the Fiscal Year 2003 Consolidated Appropriations Act required the Department of Energy to start an outreach and medical screening program for beryllium-exposed workers employed by Department of Energy vendors in the Worcester, Massachusetts, area through an existing medical screening program. When do you plan to commence this screening and outreach program?

Secretary ABRAHAM. Planning has started for the new beryllium screening and outreach project for beryllium vendor employees in the Worchester, Massachusetts, area. The project will be implemented through one of DOE's existing Former Worker Program project teams located in Boston. Existing facility records at DOE Headquarters have been located and provided to the project team to assist it in preparing a proposed plan and budget. It is anticipated that outreach will commence this summer and medical screening for beryllium exposures will be initiated before the end of the fiscal year.

27. Senator KENNEDY. Secretary Abraham, will you use an existing former worker medical screening program in order to expedite the implementation of this program?

Secretary ABRAHAM. Yes, an existing Former Worker Program project team led by Boston University will implement the new beryllium outreach and medical screening program.

QUESTIONS SUBMITTED BY SENATOR DANIEL K. AKAKA

NUCLEAR POSTURE REVIEW, U.S. STOCKPILE, AND WARHEAD DISMANTLEMENT

28. Senator AKAKA. Secretary Abraham, you indicated during your testimony that you would provide additional information regarding the administration's plans to dismantle warheads. Please also provide, in round numbers, what percentage or how many of the warheads will be dismantled that will be removed from strategic launchers by virtue of the Moscow Treaty or the decision of the administration to have only 3,800 "operationally deployed" strategic warheads by 2008.

Secretary ABRAHAM. Some warheads are likely to be retired and dismantled as a result of the administration's plans to reduce the number of operationally deployed strategic warheads to no more that 3,800 by the end of 2007 and between 1,700 and 2,200 by the end of 2012, but that determination has not yet been made beyond reaffirming the earlier decision to retire the W62 warhead by 2009. [Deleted]. The Department of Energy will work with the Department of Defense to set appropriate dismantlement rates once warheads excess to national security requirements are identified.

29. Senator AKAKA. Secretary Abraham, you indicated during your testimony that there is a trade-off between the work involved for dismantling weapons and the work involved in maintaining or refurbishing weapons. The Department's fiscal year 2004 budget includes a $12.9 million increase over the fiscal year 2003 budget for dismantlement work. Could you please list the nuclear weapons disassembly history from fiscal year 1996 to fiscal year 2002 at the Pantex Plant. Please include for each fiscal year: a) the total number of weapons disassembled for disposal; b) total weap-

ons disassembled for evaluation and then disposed of; c) the total number of weapons disassembled and then reassembled; and d) the total number disassembled.

Secretary ABRAHAM.

	Fiscal Year						
	1996	1997	1998	1999	2000	2001	2002
Disassembled for disposal	992	445	1,003	165	Deleted	Deleted	Deleted
Disassembled for evaluation and then disposed of	72	53	59	42	Deleted	Deleted	Deleted
Disassembled and then reassembled [1]	86	114	84	23	Deleted	Deleted	Deleted
Total disassembled	1,150	612	1,146	230	Deleted	Deleted	Deleted

[1] Some warheads are disassembled in 1 year and then reassembled in a future year. ''Disassembled and then reassembled'' numbers are those reported as ''rebuild'' for the appropriate year.

30. Senator AKAKA. Secretary Abraham, please list all projected disposal efforts by weapons program and projected start and end dates.

Secretary ABRAHAM.

- W–79 (Artillery-Fired Atomic Projectile)
  Disassembly began in fiscal year 1998 and was completed in January 2003.
- W56 (Minuteman II warhead)
  Disassembly began in fiscal year 2000 and will be complete in fiscal year 2005.
- B61–3/4 (Non-strategic bomb)
  Disassembly of a small number of excess units planned for fiscal year 2004–2005.
- B53 (Strategic bomb)
  Disassembly planned for fiscal year 2006–2007.

Additional warheads are likely to be retired and dismantled as a result of the Nuclear Posture Review, but that determination has not yet been made beyond reaffirming the earlier decision to retire the W62 warhead by 2009. The Department of Energy will work with the Department of Defense to set appropriate dismantlement rates once warheads excess to national security requirements are identified.

31. Senator AKAKA. Secretary Abraham, please list projected refurbishments by warhead type and projected start and end dates.

Secretary ABRAHAM. The DOE is presently working on four major Life Extension Programs (LEPs)—the B61, W76, W80, and W87. This will design, build, test, and install new subsystems and components, thereby extending the operational service for these warheads for some 30 years.

W87 Intercontinental Ballistic Missile Warhead: The LEP is enhancing structural integrity of the warhead. To date more than 3/4 of the warheads have gone through the process.
Start: First Production Unit in second quarter fiscal year 1999
End: fourth quarter fiscal year 2004

B61–7/11 Strategic Bomb: The LEP is refurbishing the canned subassembly.
Start: Phase 6.3 (Development Engineering) authorized first quarter fiscal year 2003
End: First Production Unit in third quarter fiscal year 2006 (4 year production program that is currently scheduled to end fourth quarter fiscal year 2010)

W76 Submarine-Launched Ballistic Missile Warhead: The LEP is a comprehensive overhaul of the warhead.
Start: Phase 6.3 (Development Engineering) authorized second quarter fiscal year 2000
End: First Production Unit in fourth quarter fiscal year 2007 (production of a Block 1 quantity to be completed by fourth quarter fiscal year 2012)

W80 Air Launched Cruise Missile and Advanced Cruise Missile Warhead: The LEP will replace various warhead components and incorporate surety upgrades.
Start: Phase 6.3 (Development Engineering) in first quarter fiscal year 2001
End: Program being rebaselined from a second quarter fiscal year 2006 First Production Unit to a new start date that could occur as early as third

quarter fiscal year 2007 for the W80–3 warhead (the production of a Block 1 quantity of warheads would continue for 5 years)

In addition to these major efforts, DOE is carrying out a number of smaller-scale alterations to the B61, B83, W78, and W87 warheads.

32. Senator AKAKA. Secretary Abraham, in 1991 Presidents Bush and Gorbachev announced they would take unilateral but reciprocal steps to consolidate and eliminate, in some cases, their tactical nuclear weapons. In the administration briefings on President Bush's decisions, officials stated that 850 Lance missile and 1,300 nuclear artillery warheads would be eliminated. In addition, 900 B–57 depth bombs would be eliminated. Please provide an unclassified list of the warhead types covered by President Bush's 1991 pledge, the date dismantlement began for each warhead type, the date dismantlement was or will be completed, and the number of warheads dismantled.

Secretary ABRAHAM. President George H.W. Bush, in his September 27, 1991, Address to the Nation on Reducing United States and Soviet Nuclear Weapons, stated: "I am therefore directing that the United States eliminate its entire worldwide inventory of ground-launched short-range, that is, theater nuclear weapons. We will bring home and destroy all of our nuclear artillery shells and short-range ballistic missile warheads."

Warhead types covered by President Bush's pledge:

Warhead Type	Dismantlement Dates (FY) 1992	Quantity
W33 (Artillery-Fired Atomic Projectile)	1992	554
W48 (Artillery-Fired Atomic Projectile)	1992–1996	737
W70 (Lance Missile Warhead)	1992–1997	1,138
W79 (Artillery-Fired Atomic Projectile)	1998–2003	[1]

[1] Dismantlements in fiscal year 2000 and beyond are classified Confidential Formerly Restricted Data. The W79 data will be provided separately.

While not explicitly pledged to be destroyed as part of President Bush's 1991 announcement, the Department of Energy dismantled in excess of 900 B57 bombs (all were able to be configured as depth bombs) in fiscal year 1992–1996.

33. Senator AKAKA. Secretary Abraham, please provide a list of warhead concepts currently being worked on at DOE and the national labs.

Secretary ABRAHAM. RNEP is the only warhead concept currently planned for work at the national labs in fiscal year 2003–2004.

ROBUST NUCLEAR EARTH PENETRATOR AND LOW-YIELD WEAPONS

34. Senator AKAKA. Secretary Abraham, what kinds of assurance can you provide that either a Robust Nuclear Earth Penetrator (RNEP) or low-yield weapon could be used in an urban area to attack a buried hardened target without causing substantial collateral damage?

Secretary ABRAHAM. The use of nuclear weapons is a Department of Defense matter. It would be inappropriate for me to comment on this issue.

35. Senator AKAKA. Secretary Abraham, low-yield nuclear warheads are commonly defined as those warheads with an explosive power of less than five kilotons. Does the U.S. currently have operational nuclear weapons that can have yields of five kilotons or less?

Secretary ABRAHAM. The U.S. has two existing nuclear weapons that have certified yields of less than five kilotons.

36. Senator AKAKA. Secretary Abraham, will either a RNEP weapon, new low-yield weapon, or a modified low-yield nuclear weapon require nuclear testing?

Secretary ABRAHAM. As currently conceived, RNEP will not require any nuclear testing. We are confident that with simulation and use of our past test data, we could design and certify a variety of new or modified low yield weapons without requiring nuclear testing.

37. Senator AKAKA. Secretary Abraham, Dr. Everet Beckner of the NNSA testified last year that the RNEP concept resulted from a Joint Requirements Oversight Council (JROC) validated requirement. Please list all JROC validated requirements

post 1996 for advanced concepts involving nuclear weapons by date with a brief description.

Secretary ABRAHAM. The JROC is a Department of Defense organization. We receive such requirements through the Nuclear Weapons Council. The only such requirement since 1996 has been RNEP.

38. Senator AKAKA. Secretary Abraham, on a related note, are there any validated requirements from the Nuclear Weapons Council for a new or modified weapon that would produce a yield of five kilotons or less?

Secretary ABRAHAM. There are currently no validated requirements for a new or modified nuclear warhead with a yield of five kilotons or less, and the 1994 prohibition on research and development of low yield warheads prevents DOD from developing requirements for low yield nuclear warheads.

U.S. AND FOREIGN PRODUCTION CAPACITY

39. Senator AKAKA. Secretary Abraham, can the Los Alamos facility be adapted to fabricate all the pit types for the current stockpile?

Secretary ABRAHAM. An upgraded facility could be adapted to manufacture most, but not all, pit types in the current stockpile. However, an upgraded LANL facility would not have the production capacity required or agility to simultaneously manufacture multiple pit types. Both capacity and agility in pit manufacturing are required to meet long-term national security needs.

40. Senator AKAKA. Secretary Abraham, what is the validated military requirement for annual pit production?

Secretary ABRAHAM. The DOD does not establish a validated military requirement for annual pit production, but does determine the number/types of stockpiled nuclear weapons required. Based on these DOD requirements, the DOE then determines the annual pit production necessary to ensure that stockpiled nuclear weapons meet national security needs. Today, there is a need for additional pits for W88 to replace those used for destructive surveillance.

41. Senator AKAKA. Secretary Abraham, you testified today that several countries have the ability to produce plutonium pits for a nuclear warhead, a capability the U.S. has lacked since 1989. Which other countries have this capability, and, if so, are they utilizing it?

Secretary ABRAHAM. Russia, China, India, Pakistan, and North Korea have the capability to produce plutonium [deleted] nuclear warheads. All are assessed to be utilizing or [deleted] their plutonium pit production capabilities.

- Russia is likely remanufacturing pits today for its existing nuclear weapons stockpile using previously produced plutonium.
- Likewise, China is likely producing pits from previously produced plutonium in its development of next-generation nuclear weapons.
- Although [deleted] compared with Russia's and China's, India and Pakistan [deleted] plutonium for their nuclear weapons and [deleted].
- [Deleted], North Korea is likely preparing to recover existing plutonium [deleted] and, once in hand, [deleted] manufacture pits for [deleted] nuclear weapons.

42. Senator AKAKA. Secretary Abraham, you answered in the affirmative today to a question about whether North Korea has an ability to produce plutonium primaries. Is it the position of the DOE that North Korea has a facility for the serial production of plutonium primaries? Does the CIA agree with the DOE position?

Secretary ABRAHAM. Since this question pertains to intelligence sources and methods, I am unable to answer it in an unclassified context.

43. Senator AKAKA. Secretary Abraham, is it the position of the DOE that North Korea has produced one or more plutonium primaries? Does the CIA agree with the DOE position?

Secretary ABRAHAM. Since this question pertains to intelligence sources and methods, I am unable to answer it in an unclassified context.

RUSSIA

44. Senator AKAKA. Secretary Abraham, some people have proposed importing spent nuclear fuel from around the world into Russia. They have argued that the

proceeds from this would allow Russia to pay for needed security and environmental improvements. Before this project can be implemented, however, the U.S. needs to sign an agreement on the Peaceful Uses of Atomic Energy with Russia. Please tell us about the status of negotiations with Russia on signing such an agreement.

Secretary ABRAHAM. According to the Atomic Energy Act of 1954, the United States must enter into an agreement for cooperation before it may engage in significant nuclear cooperation with another nation. The transfer of U.S. obligated spent fuel to Russia constitutes significant nuclear cooperation and would thus require an agreement for cooperation between the United States and Russian Federation. The Department of State negotiates such agreements with the technical assistance and concurrence of the Department of Energy. However, there are no ongoing negotiations between the United States and Russian Federation to conclude an agreement for cooperation. The administration has made clear that we will not negotiate a nuclear cooperation agreement with Russia under the Atomic Energy Act until our concerns about Russian WMD and missile proliferation are resolved.

45. Senator AKAKA. Secretary Abraham, at the Non-Proliferation Treaty Preparatory Committee (NPT PrepCom) in 2002, Russian officials said the implementation of the Russian commitments under the 1991 Bush-Gorbachev Presidential Nuclear Initiatives could be completed soon if there were adequate funding. If so, this would be significant as it would mean that Russia would dismantle all of its ground forces weapons—smaller nuclear artillery shells, nuclear mines, and short-range missile warheads—which are the types of nuclear weapons of the highest concern from a security standpoint. Since the NPT PrepCom, has the administration had formal or informal discussions with Russian officials about how much funding would be needed to assist Russia with finishing the implementation of its 1991 pledges? If so, what level of funding would be needed?

Secretary ABRAHAM. I share your concern about fully implementing the 1991–1992 Presidential Nuclear Initiatives. Using Nunn-Lugar funding and other funding, the National Nuclear Security Administration is extensively involved in cooperation with Russia to enhance the security of Russian nuclear warheads, however the funding is not used to enhance the operational capabilities of Russian nuclear forces.

At the May 2002 Moscow Summit, Presidents Bush and Putin established the Consultative Group for Strategic Security (CGSS) in addition to signing the Moscow Treaty. The CGSS is chaired by the Foreign and Defense Ministers of the United States and Russia, as the principal mechanism through which the sides strengthen mutual confidence, expand transparency, share information and plans and discuss a broad range of strategic issues of mutual interest. The initial meeting of the CGSS took place in September 2002, and resulted in the creation of three working groups: Working Group One on Offensive Nuclear Transparency, Working Group Two on Missile Defense Cooperation, and Working Group Three on Nonproliferation.

Working Group One has met twice this year in Geneva. The U.S. focus has been to build confidence in a spirit of cooperation by presenting a positive long-term vision and emphasizing near-term transparency. As Secretaries Powell and Rumsfeld mentioned during their testimony on the Moscow Treaty and to their Russian counterparts in the CGSS, the United States has a strong interest in transparency related to tactical nuclear weapons, and in reducing uncertainties about their safety and security and implementation of the Presidential Nuclear Initiatives. The issue of transparency of tactical nuclear weapons has been under discussion during the Working Group One meetings this year.

46. Senator AKAKA. Secretary Abraham, a significant non-proliferation problem is to guarantee Russian nuclear scientists remain safely employed in Russia. One avenue to do this is to involve them in commercial projects. Do you believe, however, there is non-commercial work these scientists could be involved in, such as energy and environmental research?

Secretary ABRAHAM. We believe that finding employment for Russian weapons scientists in Russia benefits from multiple approaches. Although supporting commercial projects is an important component of our effort, there are non-commercial opportunities as well. For example, DOE's Russian Transition Initiatives is participating in a multilateral effort coordinated by the International Science and Technology Center in Moscow to engage Russian nuclear scientists in fuel cell research, an important component of the administration's energy agenda. In addition to energy and environmental projects, there are non-commercial opportunities in nonproliferation research and in securing and eliminating weapons grade materials.

47. Senator AKAKA. Secretary Abraham, do you believe the Nuclear Cities Initiative (NCI) component of the Russian Transition Initiatives (RTI) program should move beyond the three Russian nuclear cities where it is currently focused?

Secretary ABRAHAM. Yes. The Nuclear Cities Initiative should build on its success in closing the weapons assembly facility at Avangard and begin assisting the Russian Government in shutting down a second weapons assembly facility in Zarechny (Penza-19). NCI should also expand its efforts to Seversk (Tomsk-7) to complement the efforts of the Elimination of Weapons Grade Plutonium Production project. Finding alternative civilian employment for the downsized workforce has been identified as a critical factor in that project's ultimate success. I believe that with additional funding, NCI can achieve accelerated results in both these cities because it can readily adapt the successful models developed in Sarov, Snezhinsk, and Zheleznogorsk.

48. Senator AKAKA. Secretary Abraham, do you think NCI and the Initiatives for Proliferation Prevention (IPP) should devote more attention and resources to downsizing and scientist/worker re-direction at the closed cities of Zarechny (Penza-19; especially the warhead assembly/disassembly plant) and Ozersk (Mayak)?

Secretary ABRAHAM. Zarechnyy is the second weapons assembly facility the Russians have indicated a desire to close, although we have not yet reached agreement with them on NCI work in that city. I believe that it is important for NCI, which is the downsizing component of our Russian Transition Initiative, to devote attention and resources to Zarechnyy, now that Avangard is no longer doing nuclear weapons work. With the closure of Zarechnyy, the Russians will have only two weapons assembly plants, a more appropriate level for the post-Cold War environment and one which reduces the surge capacity of the Russian nuclear complex. Because considerable U.S. funding is being provided to Ozersk by other nonproliferation programs, that city is not a priority for either NCI or IPP.

49. Senator AKAKA. Secretary Abraham, do you support a global "clean-out" of highly-enriched uranium (HEU) stocks at facilities that pose security risks—in particular, do you support creating a single, focused program at the Department of Energy consolidating the U.S. Government's resources, authority, and expertise to remove HEU from the world's most vulnerable sites as rapidly as possible?

Secretary ABRAHAM. The Harvard-NTI Report recommended a new initiative along these lines to secure HEU worldwide as rapidly as possible. We have carefully considered this recommendation and concluded such an initiative is not necessary.

Under the 1993 HEU Purchase Agreement with Russia, we have already eliminated over 170 metric tons (MT) of the 500 MT expected to be eliminated under this program. Other programs, such as the Accelerated Materials Disposition (AMD) and the Reduced Enrichment Research Test Reactor and Russian Research Reactor Fuel Return Program, will secure more HEU in the years ahead. We are working with the IAEA and Russia to secure HEU supplied to Russian and Soviet-supplied reactors. We have made special efforts, such as that directed at the Vinca reactor in Yugoslavia, to remove the HEU of greatest concern.

In our view, the administration's current plans to prioritize reducing and eliminating stockpiles based on where they pose the greatest threat is the most cost-effective and efficient approach to lowering the threat of weapons of mass destruction to the United States.

QUESTIONS SUBMITTED BY SENATOR HILLARY RODHAM CLINTON

PROTECTION OF SEALED SOURCES

50. Senator CLINTON. Secretary Abraham, unfortunately, radioactive materials that can be used to make a "dirty bomb"—known as "sealed sources"—are currently also used in a wide array of beneficial applications in the U.S., including in hospitals, research laboratories, food irradiation plants, oil drilling facilities, and airport runway lighting.

In the heightened state of alert that we now find ourselves, we need to ensure that these sealed sources are adequately protected against theft and nefarious activity. Senator Gregg and I have introduced the Dirty Bomb Prevention Act, legislation that would help provide such protections and do more to track sealed sources, recover any sources that are lost, and ensure that sealed sources are handled in a safe and secure manner so that they do not fall into the wrong hands—either at home or overseas.

I know the U.S. recently co-sponsored and you participated in an IAEA Conference on the Security of Radioactive Sources. At the conference, you stated, "It is our critically important job to deny terrorists the radioactive sources they need to construct such weapons. . . . Radioactive sources can be found all over the world, and terrorists are seeking to acquire them. The threat they represent to people of every nation is very real." Do you agree that the Federal Government should be doing more domestically to ensure that these types of radioactive material—these sealed sources—are adequately protected against theft and possible nefarious activity?

Secretary ABRAHAM. While terrorist use of radioactive materials or sealed sources does not threaten the massive destruction of a nuclear explosion, it does pose a potentially serious threat to public health and safety. I believe that the U.S. should pursue a vigorous effort to protect radioactive materials and sealed sources against theft or misuse. In fact, both the Department and the NRC have been using our existing authority to pursue such an effort.

Shortly after the events of September 11, 2001, the Chairman of the Nuclear Regulatory Commission and I formed an interagency working group to address this issue. The Department and the Nuclear Regulatory Commission released a comprehensive report on Radiological Dispersal Devices on May 14, 2003. That report identified several areas where we can accelerate our efforts, including:

- Identification of the radiological sources of greatest concern and the development of a national threat policy to guide government actions to prevent terrorist use of radioactive materials.
- Consideration of a national tracking system for sealed sources, with more extensive use of existing databases as an interim measure.
- An integrated approach to the recovery and disposition of unneeded sealed sources.

The NRC oversees the disposal of the majority of sealed sources used domestically, most of which can be safely disposed at commercial sites. The Department of Energy is responsible for the disposal of a relatively small amount of radioactive material, which exceeds the upper limit for commercial disposal. The Department is working closely with the Nuclear Regulatory Commission to aggressively recover and store unneeded sources from licensees where commercial disposal is not available.

51. Senator CLINTON. Secretary Abraham, there are institutions in New York State—and throughout the country—that are waiting for the DOE to accept these used, sealed sources for appropriate storage under the Department's Off-Site Source Recovery Program. In response to an inquiry, your Department sent me a letter in August 2001 stating, "Limited safeguards and security issues continue to impact our ability to accept Plutonium 239 sources. There are several hundred such sources around the county that could be stored under the Off-Site Source Recovery Program. We expect to be able to resolve these remaining issues and accept the sources . . . prior to September 2002." Yet as of February of this year, facilities in New York are still waiting for a ship date for these sources. Can you please tell me when DOE will be able to accept these Plutonium 239 sources for storage under the Department's Off-Site Source Recovery Program?

Secretary ABRAHAM. The Off-Site Source Recovery Program has recovered approximately 7,000 sealed sources since 1997. The program was provided $10 million in fiscal year 2002 emergency supplemental appropriations with a goal of recovering 5,000 sources in 18 months. The program has recovered over 2,500 sources under this appropriation so far, and DOE expects to exceed the goal of 5,000 sources by April 2004, which is the end of the 18-month period.

The Department also has been working to initiate the recovery of plutonium-239 sources. Due to the enhanced safeguards and security requirements which are required when working with large numbers of these sources, this process has been more difficult than with other types of sources. The Department has identified a storage location and is finalizing the safety and operating procedures at this time. The Off-Site Source Recovery Program expects to begin receiving plutonium-239 sources before the end of fiscal year 2003. Currently, source program staff are visiting a limited number of high priority sites that have plutonium-239 sources and packaging those sources for shipment. When the storage facility is ready to begin receiving shipments, there will be a number of sites already packaged and ready to ship. The Off-Site Source Recovery Program is contacting licensees who have excess plutonium-239 sources and making plans and arrangements to recover all of these sources in an efficient, cost effective manner. It will take approximately 1 year to recover all of the known, excess plutonium-239 sources.

WEST VALLEY

52. Senator CLINTON. Secretary Abraham, I am concerned that negotiations between New York State and the Department of Energy regarding the West Valley demonstration project in Western New York are at an impasse. West Valley has been engaged in the cleanup of nuclear waste, but New York State and DOE are at an impasse over who should have stewardship of the site. As the cleanup of West Valley proceeds each day, it is imperative that we reach an agreement on the long-term stewardship of the site. Do you have an update on the status of the negotiations? If not, can you have a member of your staff follow up with my staff?

Secretary ABRAHAM. On January 29, 2003, the New York State Energy Research and Development Authority issued a press release announcing that the negotiations are at an impasse. No formal negotiations have taken place since that time.

We would be pleased, as well, to follow up with your staff.

[Whereupon, at 11:10 a.m., the committee adjourned.]

DEPARTMENT OF DEFENSE AUTHORIZATION FOR APPROPRIATIONS FOR FISCAL YEAR 2004

TUESDAY, APRIL 8, 2003

U.S. SENATE,
COMMITTEE ON ARMED SERVICES,
Washington, DC.

HOMELAND DEFENSE

The committee met, pursuant to notice, at 10:17 a.m. in room SR–325, Russell Senate Office Building, Senator John Warner (chairman) presiding.

Committee members present: Senators Warner, McCain, Inhofe, Allard, Collins, Chambliss, Dole, Cornyn, Levin, Kennedy, Reed, E. Benjamin Nelson, and Pryor.

Committee staff member present: Judith A. Ansley, staff director.

Majority staff members present: Charles W. Alsup, professional staff member; Carolyn M. Hanna, professional staff member; Patricia L. Lewis, professional staff member; Ann M. Mittermeyer, counsel; Paula J. Philbin, professional staff member; and Scott W. Stucky, general counsel.

Minority staff members present: Richard D. DeBobes, Democratic staff director; Madelyn R. Creedon, minority counsel; Evelyn N. Farkas, professional staff member; and Richard W. Fieldhouse, professional staff member.

Staff assistants present: Michael N. Berger, Andrew W. Florell, and Nicholas W. West.

Committee members' assistants present: Christopher J. Paul, assistant to Senator McCain; James Beauchamp, assistant to Senator Roberts; Jayson Roehl, assistant to Senator Allard; James P. Dohoney, Jr., assistant to Senator Collins; D'Arcy Grisier, assistant to Senator Ensign; Clyde A. Taylor IV, assistant to Senator Chambliss; Christine O. Hill, assistant to Senator Dole; Russell J. Thomasson, assistant to Senator Cornyn; Mieke Y. Eoyang, assistant to Senator Kennedy; Elizabeth King, assistant to Senator Reed; William K. Sutey, assistant to Senator Bill Nelson; Eric Pierce, assistant to Senator E. Benjamin Nelson; Andrew Shapiro, assistant to Senator Clinton; and Terri Glaze and Andy York, assistants to Senator Pryor.

OPENING STATEMENT OF SENATOR JOHN WARNER, CHAIRMAN

Chairman WARNER. The committee meets today to receive testimony on the Department of Defense's role in the defense of our homeland. I am pleased to welcome today's witnesses: the Honorable Paul McHale, the first Assistant Secretary of Defense for Homeland Defense; General Ralph Eberhart, the first Commander of the United States Northern Command (NORTHCOM); and Admiral James Ellis, the first Commander of the restructured United States Strategic Command (STRATCOM). Thank you all and your assistants for traveling long distances in some instances to get here.

I emphasize the fact that you gentlemen are the first for an important reason. You are part of a transformation of our military that is broader and deeper than just an examination of weapons systems or military hardware. This transformation, a refocusing of organizations and missions, was accelerated by the tragic events of September 11.

As we begin our hearing this morning, our thoughts and prayers are with our brave men and women in Iraq and Afghanistan, as well as other parts of the world. We must be ever mindful of the fact that they and their families, their efforts are our first line of defense in the overall security of our homeland. Homeland defense begins on these outposts of the world. For every terrorist stopped on a distant battlefield, that is one less who will bring danger to our shores.

As we saw on September 11 and also in recent natural disasters, the Department of Defense (DOD) has unique capabilities to contribute to the overall security of our homeland. You gentlemen represent the leadership that will bring these capabilities to bear. Through your testimony, we hope to more clearly learn the Department's role in homeland security and how each of you envision the interaction between your respective organizations to achieve an integrated Department of Defense effort and, in tradition with this committee, your personal views on what additions should be made.

With the establishment of the new Department of Homeland Security (DHS), we are reminded that homeland security is an enormously complex task that must be carefully coordinated throughout the government. It is essential that we understand how you will coordinate your efforts with this new department and what additional capabilities, resources, and authorities you will require to ensure the success of this challenging effort that is so vital to our national security.

The Armed Forces of the United States must in every way legally possible support our Nation's homeland security effort. This fundamental imperative is one that President Bush identified to the American people while he was still Candidate Bush. In a speech at The Citadel in September 1999, then-Governor Bush stated that, "The protection of America itself will assume a high priority in a new century. Once a strategic afterthought, homeland defense has now become an urgent duty." We are indeed fortunate that our President had the foresight to begin to prepare our Nation for the challenges we are confronting today.

Gentlemen, you truly are a part of transformational change occurring within our Armed Forces. As a part of that, let me once again raise a controversial issue, the issue of posse comitatus. I have recommended to the administration ever since September 11 the reevaluation of the contribution that DOD can make to homeland defense and do it within the parameters of that tried and effective statute, put on the books for good intentions way back when, but I think it needs to be re-examined today and I believe the Department is undertaking to do that.

Simply put, this law prohibits members of the Armed Forces from engaging in law enforcement activities, a very sensible and rational and time-tested, proven doctrine. But things have changed and emergencies occur, and in that instance we should re-examine whether or not the current law and its regulations and interpretations need to be changed in any way and what role Congress might have or not have.

This law was adopted in the aftermath of the Civil War, and the rest of the history you know.

Thank you very much for this opportunity to have all three of you here today, as a matter of fact.

Senator Levin.

STATEMENT OF SENATOR CARL LEVIN

Senator LEVIN. Thank you, Mr. Chairman, and I want to join you in welcoming our three witnesses this morning to discuss the very important subject of homeland defense.

As the chairman said, you are part of a first and making history. It is appropriate that this hearing this morning is taking place in the Senate Caucus Room, which has been a part of so much history.

Admiral Ellis, I guess you made a little history this morning, or at least your daughter-in-law did. I understand you are a new grandfather. I do not know if that is for the first time, but I know you have a new grandson this morning. Congratulations on behalf of all of us. I know your son, who is the father of your new grandson, is in Afghanistan. We wish the new baby, his mother, and his father the best of all wishes possible.

Admiral ELLIS. Thank you very much, Senator. We are very proud.

Senator LEVIN. It is typical of your family that the father is in Afghanistan. You will be seeing the new boy before the father will. But that is the way he chose to dedicate his life, and we are very proud of him and you.

Admiral ELLIS. Thank you for your kind words.

Senator LEVIN. I do not know if either of the other witnesses has family either in Iraq or in the area or in Afghanistan. If you do, I do not mean to leave you out in any way.

Each of you has a new role to fulfill in meeting the challenge of defending the United States, and in General Eberhart's case North America. As part of the Unified Command Plan Change 2, which was effective last October, the Strategic Command and the Northern Command have new missions. The Northern Command mission is to provide command and control of Defense Department homeland defense efforts and to coordinate support to civil authorities.

Strategic Command assumes the missions of U.S. Space Command as well as four new missions, including oversight of command, control, communications, computers, intelligence, surveillance, and reconnaissance in support of global and strategic operations and global missile defense integration.

The North American Air Defense Command retains its previous mission, but now aligns with Northern Command rather than Space Command. The Office of the Assistant Secretary of Defense for Homeland Security, also recently established, will provide the policy guidance to support the homeland defense mission, as well as coordinate with the Department of Homeland Security and other Federal agencies involved in homeland defense.

In the short time that each of you has been in your new position, you have made considerable progress, including establishing a binational U.S.-Canadian commission, working with the Southern Command (SOUTHCOM) and Pacific Command (PACOM) to develop recommendations regarding future roles and organization of the joint inter-agency task forces, drafting a plan for establishing a Weapons of Mass Destruction Civil Support Team (WMD–CST) in every American State and territory, and working to develop the right mix of forces that would be assigned to the Northern Command under the Joint Task Force-Civil Support (JTF–CS) to help civilian authorities when directed by the Secretary of Defense.

Much remains to be done, including the establishment of operational requirements for missile defense and implementing the computer network defense and attack missions. In addition, there remain many challenges, including coordinating between Northern Command and Pacific Command to work out the modalities of protecting Alaska and Hawaii, coordinating intelligence, surveillance, and reconnaissance missions for the DOD, and, perhaps most importantly, for ensuring usable intelligence is provided to all commands in a timely fashion.

So we thank each of you for your work and your service and for launching this new effort. We look forward to hearing from each of our witnesses.

Chairman WARNER. Thank you, Senator Levin.

Senator McCain.

Senator MCCAIN. Thank you, Mr. Chairman.

I want to thank the witnesses for being here today and I apologize for not being able to remain during the entire hearing. However, I do want to raise one subject with the Secretary, General Eberhart, and Admiral Ellis. There is a dirty little secret about homeland security that I believe needs to be examined and remedied as soon as possible, and that is the fact that our borders are not secure.

We have an increasing flow of illegal immigrants, drugs, and possibly—I emphasize, possibly—terrorists through our southern border and perhaps our northern border. I am not as familiar with the northern border as I am with the southern border. We have had park rangers killed. We have had gunfights. We have had organizations paint vehicles exactly like Border Patrol vehicles and come across our border. We have intercepted individuals from Middle Eastern countries. We have found a backpack with documents printed in Arabic.

We have no control over our southern border. 30,000 illegal immigrants are coming across the Arizona border every month. I think it argues for a high priority. It argues for complying with a fundamental of the United States of America's security, and that is if our borders are porous and people can move back and forth across our borders at will and with impunity, it poses a threat. I do not know how we can assure the security of our homeland when we have insecure borders.

In my home State of Arizona, we now have vigilante groups who are forming and because of their frustration with the lack of enforcement of our border, are now taking the law into their own hands. That has some very dangerous consequences, but their frustration is somewhat understandable. When you meet ranchers who have had 11 times in one week sport utility vehicles bursting through the seven-strand barbed wire fence that is the barrier between our two countries, invading their land, it is serious. When you have the National Park Service personnel who are in charge of the wildlife refuges on the border saying the wildlife refuges are being destroyed, we have a very serious problem.

It is going to take, among other things, the use of some high technology. I do not see how you can put individuals all the way across our border between the United States and Mexico. I would urge you to look at the use of the Predator, and other high tech equipment which we have developed and could easily use along our border.

This issue is serious. It has human consequences. Last year, 134 people died in the desert trying to cross over from Mexico into the United States of America. It has security consequences and it has economic consequences for our health care organizations and other providers of assistance to our citizens and now are providing it to illegal immigrants.

So I hope that in your testimony or in the question and answer session you will discuss this issue, because again I do not see how you can possibly tell Americans that their homeland is secure if their border is not secure, and the degree of insecurity of those borders I think is not appreciated by most Americans today.

I thank you, Mr. Chairman. I thank the witnesses for being here and I thank them for the outstanding work that they are doing.

Chairman WARNER. Thank you, Senator McCain. That is a very important dimension to our oversight responsibilities. It is probably shared by other committees, but we have jurisdiction over a portion of that.

Senator LEVIN. Before Senator McCain leaves, if I could just ask Senator Kennedy to yield for a minute. I want to concur in what he said about our borders. The northern border which he made reference to is indeed a huge risk for us in terms of our security. We have gone into this at great length, but the point that he made about our southern border is indeed too true for our northern border as well. I want to thank him for raising the issue this morning.

Senator MCCAIN. Could I mention—Mr. Chairman, I do not want to take the time of the committee.

Chairman WARNER. Go right ahead.

Senator MCCAIN. We do not want the military on the border. That is not appropriate. It is not constitutional. They are not

trained for it. There are too many strings on it. I believe that a lot of the equipment that the military has can have great application to border security, and that is where I hope that the members of this panel can be involved and helpful to us.

Thank you.

Chairman WARNER. Thank you again.

Senator Kennedy.

Senator KENNEDY. Just very briefly, welcome, gentlemen. I had an opportunity over the weekend to go down to Otis Air Force Base, home of the 102nd National Guard Fighter Wing. You have elements of it over in Iraq. The 101st, which is one of the wings, has been awarded as the top Air National Guard Wing, and it obviously has—they take great sense of pride in meeting their responsibilities in terms of air security over the Northeast. They are very, as you well know, highly skilled, highly dedicated and committed, and it is always reassuring.

Second, on the issues of immigration as well, we passed a Border Security Act a little over a year ago and it is gradually being implemented. That has implications on both the southern border as well as the issues on all the borders surrounding us.

One of the important things that had not been happening is the Central Intelligence Agency (CIA) had not been cooperating with the Immigration and Naturalization Service (INS) and therefore the INS had one hand behind its back. For instance, two of the hijackers that came from Saudi Arabia were on the watch list and the CIA had not notified them, and they were able to get visas to come on in here. So this cooperation is something that is beginning to take place, but it is something that is going to be enormously important in terms of helping.

Just a final point. I want to commend the Defense Department for its immunization of smallpox. They have done a very effective job, immunizing I think 230,000 troops; I do not know for sure. They have done it extremely effectively. They have had small numbers of adverse reactions. They have taken good care of the people with those and I believe, at least what I had heard previously, virtually all of them had returned to duty.

But it has been a very good screening program with follow-up programs, and it really is the way to do it. As we are moving on into these issues on smallpox, the DOD has really given a wonderful example of how to do it. Constantly we have these other issues and there was a hearing on Severe Accute Respiratory Syndrome (SARS) yesterday. There is no reason to believe that it is a bioterrorist weapon, but it could have been. The way the World Health Organization (WHO) responded on that along with the Centers for Disease Control (CDC) and the National Institutes of Health (NIH) is enormously reassuring in terms of almost a test case on this.

I bring that to your attention as one of the things that appears to be working. Several things that I have mentioned here are working very well.

Chairman WARNER. Thank you, Senator Kennedy.

Senator Inhofe, any other members wish to make an opening statement, please signify.

Senator INHOFE. I will just make it very brief, Mr. Chairman. My concern is with operation tempo (OPTEMPO) right now. I know that, Secretary McHale, you are very interested in this and we talked about this before. In fact, all of us have. I do not think there has been a time in our history that we have had to call up so much of the Reserve component, and it is becoming a real hardship and we are losing some critical Military Occupational Specialties (MOS). The fact is exacerbated by the fact that you also have a lot of your first responders in the Guard and in the Reserves. You are going to have to be handling that.

So my major concern is the capacity. What are we going to be able to do? How much can you spare from the military side for homeland security, because from where I sit in Oklahoma and I watch those that are being called up, I do not see that we have the capacity to give anything there. So it is a critical thing that I know you are having a difficult time dealing with, but we certainly have to be answering this in our own minds as we develop future budgets because, as the chairman said in his opening remarks, things have changed in our relationship with the use of the Guard and Reserves.

Thank you, Mr. Chairman.

Chairman WARNER. Are there others? Senator Reed, do you wish to make a statement?

Senator REED. No, Mr. Chairman.

Chairman WARNER. Fine, thank you.

Senator Allard.

Senator ALLARD. Mr. Chairman, I would briefly welcome the panel. I think this is the first time we have had a hearing since about this time last year when we discussed the reorganization, and I want to congratulate you, Mr. Chairman, on a timely hearing. I think it is important. They have been stood up since around early this fall—I think it was the 1st of October—and then it has been a year now and I am looking forward to hearing their comments.

We did some unique things. We set up Northern Command. We also combined U.S. Space Command and U.S. Strategic Command. I want to know how that is progressing along.

On immigration, when I listen to the comments here of my colleagues and on the floor, I agree, here on the table, that we do have a problem with the borders, but we cannot do it alone. It seems to me we have to solicit help from our neighbors, Canada and Mexico. We have to get them, and I hope that some effort is being done diplomaticly to bring them in. They need to be partners in dealing with this. I do not know exactly how we do it, but I think that is vital to our success on the borders.

Thank you, Mr. Chairman. I have a full statement I would like to make a part of the record.

[The prepared statement of Senator Allard follows:]

PREPARED STATEMENT BY SENATOR WAYNE ALLARD

Thank you, Mr. Chairman. Last year, at this time, the Department of Defense announced several changes in the unified command plan. This is really the first time that this committee has had the opportunity to examine these changes. I thank you, Mr. Chairman, for calling this hearing. It is important that we remain engaged on these issues.

Never before has homeland defense and homeland security received so much attention. The administration responded to September 11 with a number of proposals, including the creation of the Department of Homeland Security and the development of a homeland security strategy. To better respond to threats to the homeland, the Department of Defense recommended several changes to its command structure, which the President approved, that greatly improved the Department's ability to defend the homeland and support lead civilian crisis and consequence management agencies.

The creation of U.S. Northern Command was one of these changes. This new organization will be responsible for protecting our homeland from external threats and for supporting Federal, State, and local agencies inside the homeland. I look forward to hearing from General Eberhart about the progress his command has made over the last year.

The changes in the unified command plan also included the folding of U.S. Space Command into U.S. Strategic Command. I understand that Admiral Ellis and U.S. Strategic Command has done a great job in supporting our troops in Iraq and in the global war against terrorism. But, while I recognize the importance of this effort, I want to make sure that other areas, such as Space, also remain a top priority for Strategic Command.

I thank the Assistant Secretary of Defense for Homeland Defense for being here today. I understand this is his first appearance before this committee since his nomination hearing. I look forward to your testimony about the Department's efforts to better protect our homeland.

Our country remains vulnerable to attack; but the administration and the Department of Defense recognize these vulnerabilities and are taking measures to secure our homeland. This is a long-term process and we should not expect quick results. We must be deliberate and certain that the measures we take better secure our homeland and protect us from potential attacks.

I appreciate the willingness of our witnesses to testify before this committee during this difficult time and look forward to their testimony.

This concludes my opening remarks. Thank you, Mr. Chairman.

Chairman WARNER. Without objection, it is so admitted.

Senator Nelson.

Senator BEN NELSON. Thank you, Mr. Chairman.

First of all, I want to welcome you all. There are so many concerns today about homeland security, but I have boiled it down to hometown security. If you do not feel secure in your hometown, it is pretty hard to feel secure in your homeland.

In the process of calling up reservists and guardsmen, as we always have, we are today faced with trading off what we have to support us on the front lines versus what we have on the home front. So many of our reservists and guardsmen are also first responders, firefighters, police officers, and emergency workers, that it makes it very difficult. I hope that we are able to find a way to protect ourselves and secure the people here at home as well as to try to take care of our interests abroad.

So I thank you very much and look forward to your comments.

Thank you, Mr. Chairman.

Chairman WARNER. Thank you.

Senator Collins, as Chairman of the Governmental Affairs Committee, you have jurisdiction over some of the aspects of homeland defense.

Senator COLLINS. Thank you very much, Mr. Chairman. As Chairman of the Committee on Governmental Affairs, which has jurisdiction over the new Department of Homeland Security, I am particularly interested in hearing from our witnesses today about the extent of cooperation between DOD and the new Department of Homeland Security. This is an issue that I discussed with Secretary McHale when we met and I look forward to hearing the comments of our witnesses in this regard.

Thank you.

Chairman WARNER. Thank you very much. Does anyone else have an opening statement?

Senator CORNYN. I will withhold any comments until questions.

Chairman WARNER. We will hear from our first witness, Assistant Secretary of Defense for Homeland Defense, Paul McHale, a former member of the United States House of Representatives and a marine with considerable experience and some personal knowledge on what it is like to be called up from the Reserves. Welcome.

STATEMENT OF HON. PAUL MCHALE, ASSISTANT SECRETARY OF DEFENSE FOR HOMELAND DEFENSE

Secretary MCHALE. Good morning, sir. Senator Warner, Senator Levin, members of the committee: Good morning.

I will be submitting a formal statement for the record. It is currently under review by the Office of Management and Budget (OMB). But, Mr. Chairman, with your consent I would like to provide a few brief remarks at the opening of the hearing.

Chairman WARNER. Without objection.

Secretary MCHALE. Mr. Chairman, President Bush has said that, "The world changed on September 11, 2001. We learned that a threat that gathers on the other side of the Earth can strike our own cities and kill our own citizens. It is an important lesson, one we must never forget. Oceans no longer protect America from the dangers of this world. We are protected by daily vigilance at home and we will be protected by resolute and decisive action against threats abroad."

At the outset, Mr. Chairman, we should recognize that America's first line of domestic defense really begins overseas and results from the capabilities of our forward deployed forces, many of whom are engaged in combat as we meet this morning. In that sense, Secretary Rumsfeld has correctly noted that the annual homeland defense budget of the Department of Defense is $380 billion.

Recognizing, however, in the wake of the attacks on September 11, that it was now essential to establish a new combatant command with specific geographic responsibility for the United States, NORTHCOM was created. On 1 October, NORTHCOM assumed initial operational capability (IOC). The mission of NORTHCOM, as paraphrased by Senator Levin a few minutes ago, is as follows: "United States Northern Command conducts operations to deter, prevent, and defeat threats and aggression aimed at the United States, its territories and interests, within assigned areas of responsibility, as directed by the President or the Secretary of Defense provides military assistance to civil authorities, including consequence management operations."

NORTHCOM's responsibilities fall essentially into two categories: the warfighting defense of the area of responsibility (AOR) and civil support to civil authorities under circumstances where we in the Department may have a unique capability not possessed by the civilian community or, as was the case after September 11, under those circumstances where it is determined that civilian authorities are overwhelmed by the immediate challenge at hand.

NORTHCOM's force structure is unusual when compared to other geographic combatant commands. There are very few forces

which are permanently assigned, although appropriate units have been identified for possible assignment as needed. NORTHCOM's commander is my friend Ed Eberhart, a superb general who joins me this morning. His headquarters is located at Peterson Air Force Base and, as I noted a few moments ago, his command assumed initial operational capability just a few months ago.

I was nominated by the President to become the first Assistant Secretary of Defense for Homeland Defense in January. That was to fill a new position created by the National Defense Authorization Act of 2003. You were kind enough to confirm me to that position approximately 2 months ago.

During the past 2 months since I appeared before you during my confirmation hearing, we have been busy. I have visited virtually every major homeland defense command in the United States. In the case of Hawaii—a distant responsibility—pursuant to the commitment that I gave to Senator Akaka, although I could not physically visit Hawaii during that period of time, I had a secure videoteleconference with the operations officer for PACOM and discussed with him the same kinds of issues that I had covered in person with all of the other commands.

Chairman WARNER. There are a number of those commands and would you provide for the record a listing.

Secretary MCHALE. The ones that I visited, sir?

Chairman WARNER. I want to know all of them. Whether you visited them or not, we would like to have the entire structure as a part of the record.

[The information referred to follows:]

[Deleted.]

Secretary MCHALE. Yes, sir, we will happily submit that.

Just to give you a brief summary, NORTHCOM and North American Aerospace Defense Command (NORAD), are collocated out of Peterson Air Force Base. Beneath NORTHCOM in terms of command and control we have Joint Task Force-Civil Support, which is located in Norfolk; Joint Forces Headquarters, Homeland Security, also in Norfolk. We have a series of six Quick Reaction Forces (QRFs), rapid reaction forces at the battalion level, that are geographically dispersed throughout the United States. We have JTF–6, which is located in El Paso.

I have visited nearly all of those. There are two QRFs that I have not yet been able to visit, one at Fort Drum and one in Alaska, but hopefully those visits will be scheduled in the very near term.

That gives you essentially an overview of the wire diagram that falls under the command of General Eberhart. If I have missed any major components, he can certainly add to the list that I presented to you during his testimony. We will give you a formal list of all of those units for the record, sir.

Chairman WARNER. If you have a wiring diagram, that would be helpful also.

Secretary MCHALE. We do, sir. As you look at that——

Chairman WARNER. Does anyone have a copy of it with him?

Secretary MCHALE. Pardon me, sir?

Chairman WARNER. Does any witness have a copy of that wiring——

General EBERHART. Let me check, sir. I may.

Chairman WARNER. If so, I would like to have the diagram duplicated and distributed to the members in attendance.

Secretary MCHALE. Yes, sir.

Senator Collins a couple of moments ago emphasized her interest in the relationship between the Office of the Assistant Secretary of Defense for Homeland Defense and the new Cabinet agency for which her committee has primary oversight responsibility, the Department of Homeland Security. Senator, let me assure you that in the interim since we last spoke we in the Department of Defense have worked very hard to establish a close working partnership with the Department of Homeland Security.

We have a full-time Department of Defense representative in their operation center. We are in daily communication with the Department of Homeland Security. We have complete sharing of intelligence information between the two departments. Routinely each day we provide to them intelligence that we in the Department of Defense believe may be helpful to them in the execution of their mission, and they similarly do not hesitate to contact us on matters that are of mutual concern.

In addition, Pete Verga, who has now been appointed my principal deputy and is seated behind me, has as one of his major responsibilities the day-to-day management of that relationship between the Department of Homeland Security and the Department of Defense.

Mr. Chairman, I had a number of other comments, but in the interest of time I will bring my opening statement to a close. I certainly would welcome any questions that you might have and I will do my very best to answer them. I would simply say in conclusion that I can assure you today, as always, America's men and women in uniform stand ready to defend our Nation against any threat at home or abroad. I welcome your questions.

[The prepared statement of Secretary McHale follows:]

PREPARED STATEMENT BY HON. PAUL MCHALE

INTRODUCTION

Chairman Warner, Senator Levin, and members of the committee: I appreciate the opportunity to meet with you on the critical subject of our Nation's security.

As stated in the 2001 Quadrennial Defense Review, the highest priority for the U.S. military is the defense of the U.S. homeland. At home and abroad, the Department of Defense is a significant contributor in this national effort to secure our Nation and its people.

The President understands that terrorists can attack at any time, in any location, using every conceivable technique. He also understands that it is physically not possible to defend against every conceivable threat, in every place, at every time. To successfully defend against terrorism, and other 21st century threats, requires that we take the war to the enemy. Our task is to put pressure on the terrorists wherever they are, in Afghanistan and across the globe, to ensure that they have no safe haven, no sanctuary, anywhere in the world.

That is why the President has marshalled all of the Nation's capabilities—political, economic, financial, law enforcement, military and intelligence—to deter, attack, and destroy terrorist organizations, and those who harbor them. These organizations typically threaten the United States, our interests, or our allies from terrorist locations overseas.

That is why defense of the homeland actually starts abroad, where our soldiers, sailors, airmen, and marines are putting their lives on the line every day to make it more difficult for terrorists to plan or execute their attacks before they ever near our borders.

HOMELAND DEFENSE AND HOMELAND SECURITY

As described by the President in the National Strategy for Homeland Security, homeland security is defined as a concerted national effort to prevent terrorist attacks within the United States, reduce the vulnerability of the United States to terrorism, and minimize the damage and assist in the recovery from terrorist attacks.

In addition, the Defense Department defines homeland defense as the military protection of United States territory, domestic population, and critical defense infrastructure against external threats and aggression. It also includes routine, steady state activities designed to deter aggressors and to prepare U.S. military forces for action if deterrence fails.

With respect to homeland security, the Defense Department will usually operate in support of a lead Federal agency. While in homeland defense activities, the Defense Department will take the lead and be supported by other Federal agencies. In fact, Section 876 of Public Law 107–296, the Homeland Security Act of 2002, recognizes the Department of Defense's lead role in the conduct of traditional military missions by providing that "[n]othing in this act shall confer upon the Secretary [of Homeland Security] any authority to engage in warfighting, the military defense of the United States, or other military activities, nor shall anything in this act limit the existing authority of the Department of Defense or the Armed Forces to engage in warfighting, the military defense of the United States, or other military activities." This section clearly delineates the difference between homeland defense activities and homeland security activities.

THE DEPARTMENT OF DEFENSE'S ROLE IN THE SECURITY OF THE NATION

In his testimony before Congress in May of last year, the Secretary of Defense described three distinct circumstances in which the Department of Defense would be involved in activities within the United States:

The first case was extraordinary circumstances, which require the Department to execute its traditional military missions. For example, combat air patrols and maritime defense operations. In these cases the Department plays the lead role and is supported by other Federal agencies. For instance, combat air patrols where the Federal Aviation Administration (FAA) provides data to assist the efforts of Air Force fighter pilots in identifying and, if necessary, intercepting suspicious or hostile aircraft. Also included in the category of extraordinary circumstances are cases in which the President, exercising his Constitutional authority as Commander in Chief, authorizes military action.

The second case was emergency circumstances of a catastrophic nature—for example: responding to an attack or assisting in response to forest fires, floods, hurricanes, tornadoes, and so forth, during which the Department may be asked to act quickly to provide capabilities that other civilian agencies do not have.

Finally, the Secretary noted temporary circumstances, where the Department is given missions or assignments that are limited in duration or scope and other agencies have the lead from the outset. An example of this would be security at a special event like the Olympics. Another example is assisting other Federal agencies in developing capabilities to detect chemical/biological threats.

Subsequent to the Secretary's testimony, three significant changes to the Department of Defense have fostered an evolving perspective of our role at home in the security of our Nation.

First, the Secretary of Defense, with the approval of the President, changed the Unified Command Plan and stood up, on October 1, 2002, the U.S. Northern Command. U.S. Northern Command's mission is to:

- Conduct operations to deter, prevent, and defeat threats and aggression aimed at the United States, its territories, and interests within the assigned area of responsibility; and
- As directed by the President or Secretary of Defense, provide military assistance to civil authorities including incident management operations.

General Ed Eberhart, Commander of U.S. Northern Command, also commands the North American Aerospace Defense Command (NORAD), which is collocated with U.S. Northern Command at Peterson Air Force Base, Colorado Springs, Colorado. U.S. Northern Command is a U.S. only command and NORAD is a U.S.-Canada bilateral command. NORAD is responsible for the aerospace defense of North America. U.S. Northern Command is responsible for the land, maritime and U.S.-only air capabilities of homeland defense. The two commands work closely together on a daily basis to provide aerospace defense to the Nation. The U.S. Northern Command and NORAD staffs are integrated with the dual-hatting of many staff officers.

U.S. Northern Command's area of responsibility includes air, land and sea approaches and encompasses the continental United States, Alaska, Canada, Mexico, and the surrounding water out to approximately 500 nautical miles. It also includes the Gulf of Mexico, Puerto Rico and the U.S. Virgin Islands. The defense of Hawaii and our territories and possessions in the Pacific remain the responsibility of U.S. Pacific Command. U.S. Northern Command will additionally be responsible for security cooperation and coordination with Canada and Mexico.

In addition to defending the Nation, U.S. Northern Command will provide military assistance to civil authorities in accordance with U.S. laws and as directed by the President or Secretary of Defense. Military assistance is almost always in support of a lead Federal agency, such as the Department of Homeland Security.

Military civil support includes domestic disaster relief operations that occur during fires, hurricanes, floods, and earthquakes. Support also includes counter-drug operations and consequence management assistance, such as would occur after a terrorist event employing a weapon of mass destruction.

Second, the Fiscal Year 2003 National Defense Authorization Act directed the establishment of an "Assistant Secretary of Defense for Homeland Defense." I am honored to serve as the first Assistant Secretary of Defense for Homeland Defense.

In accordance with Section 902 of Public Law 107–314, the Bob Stump National Defense Authorization Act of 2003, my principal duty is "the overall supervision of the homeland defense activities of the Department of Defense" to be exercised subject to the Secretary's authority, direction and control (10 U.S.C. 113(b)) and without interfering with the chain of command over the Armed Forces (10 U.S.C. 162(b)). My charge, as given to me by law, by the Secretary of Defense, and by the President is to lead and focus the Department's activities in homeland defense and homeland security, ensure internal coordination of DOD policy direction, provide guidance consistent with the law to Northern Command for its homeland defense mission and its military activities in support of homeland security, to include support to civil authorities, and to coordinate with the Homeland Security Council (HSC), the National Security Council (NSC), the Department of Homeland Security (DHS), and other government agencies. In other words, I am responsible for recommending to the Secretary the roadmap for the Defense Department's role in securing our Nation at home.

Third, the Fiscal Year 2003 National Defense Authorization Act also directed the establishment of an "Under Secretary of Defense for Intelligence."

The Under Secretary of Defense for Intelligence will have the primary responsibilities to assure that the senior leadership of the Department and Combatant Commanders receive the warning, actionable intelligence and counter-intelligence support needed to pursue the objectives of our new defense strategy.

The Under Secretary will also enhance Defense Department intelligence-related activities, provide a single point of contact for coordination of national and military intelligence activities with the Community Management Staff and strengthen the relationship between the Secretary of Defense and the Director of Central Intelligence. So, in terms of this forum, the new Under Secretary will define and provide oversight for the Defense Department's participation in national Indications and Warning.

DOD ACTIONS TO DEFEND THE NATION

As the President said, on the eve of the standup of the new Department of Homeland Security, "We're tracking down terrorists who hate America, one by one. We're on the hunt. We [have] them on the run. It's a matter of time before they learn the meaning of American justice. We're opposing terror regimes that are arming with weapons of mass destruction to threaten the peace and freedom of this world. We're taking unprecedented measures to defend the homeland with the largest reorganization of our government in more than a half a century."

On October 7, 2001, we took the fight to the enemy when we, along with our allies, launched attacks against al Qaeda and the Taliban in Afghanistan. This operation, Operation Enduring Freedom, successfully liberated Afghanistan from the Taliban, destroyed al Qaeda training bases, disrupted al Qaeda communications and impaired al Qaeda organizational efforts.

The Department continues to prosecute the war on terrorism abroad. Today, the brave men and women waging the war against terrorism around the world are America's first and most important line of defense against homeland attack. By going directly to the source and rooting out terrorists and their networks, they deter and defeat terrorist attacks before they occur.

Protecting our Nation requires an unprecedented level of cooperation throughout all levels of government, with private industry and institutions, and with the Amer-

ican people. The Federal Government has the crucial task of fostering a collaborative environment, and enabling all of these entities to work together to provide the security our Nation requires. The new Department of Homeland Security is tasked with the responsibility of leading this national effort to protect our Nation against terrorist attacks. The Secretary of Defense has made a public commitment to work closely with the new Department of Homeland Security in order to coordinate our respective responsibilities.

The U.S. military actually took its first step in response to September 11, 2001 when two F–15 Eagle jets arrived at the World Trade Center, just minutes after United Airlines Flight 175 sliced into the second tower. While they were unable to alter the course of history on that morning, they stood guard with renewed vigilance. They were the first, but they were not the last.

The direct defense of the American homeland, Operation Noble Eagle, commenced immediately after the September 11 attacks and includes combat air patrols over key domestic locations, expanded air operations, and command and control of active component forces, including U.S. Navy ships with anti-aircraft systems to enhance the security of U.S. domestic airspace. Since September 11, 2001, DOD has been flying daily combat air patrols over U.S. cities. Since that date, DOD has flown over 28,000 sorties and responded to more than 1,000 requests from the FAA to intercept potential air threats. Operation Noble Eagle also entails Coast Guard inspections of cargo vessels and patrols—supported by Navy Patrol Coastals—in defense of major seaports.

The Department of Defense is supporting the Department of Homeland Security as the lead Federal agency for homeland security. Military planners assisted the Department of Homeland Security in the development of the Liberty Shield plan. DOD's continuing homeland security commitments as part of Operation Noble Eagle complement Liberty Shield's national effort to protect our citizens and infrastructure.

THE NATIONAL GUARD'S ROLE IN THE SECURITY OF THE NATION

One of the critical elements in DOD's contribution to the security of our Nation is the National Guard. Since the terrorist attacks of September 11, the Defense Department has depended daily upon the personnel and resources of the National Guard. In fact, the two F–15 Eagle jets that responded to the attacks on the World Trade Center on September 11, 2001, were from the 102nd Fighter Wing, Massachusetts Air National Guard at Otis Air National Guard Base (ANGB).

When we were attacked on September 11, more than 100,000 reservists and National Guard members sprang into action—Army, Navy, Air Force, Marines, Coast Guard. Since then, they have helped defend our homeland, drive the Taliban from power, shut down the terrorist training camps in Afghanistan, and liberate the Afghan people.

These contributions have been vital to our success thus far in the global war on terrorism.

The National Guard is particularly well-suited to perform selected homeland defense missions, such as the Air National Guard's important role in continental air defense. However, the National Guard is combat ready to conduct overseas military operations and is relied upon by combatant commanders as part of our Nation's strategic Reserve.

In the past, the National Guard was dual-tasked. In wartime, the Nation has expected the Guard to fulfill its mission overseas; in peacetime, the Nation has expected the Guard to be available for domestic emergencies. The terrorist attacks of September 11 have now taught us that the National Guard may be called upon to do both at the same time, not by accident but because our Nation's enemies may attack us in both places at once.

Consequently, as DOD reviews how best to deal with the challenge of the new security environment, it is mindful of the need to properly balance the application of the total force to: defend the homeland, contribute to the global war on terrorism, meet military commitments abroad, and, if necessary, participate in a major theater war.

The National Guard can support homeland security in several ways. First, the Guard can operate in State service under the direction of the governors. For example, on September 11, the National Guard of New York, New Jersey and Connecticut responded to the attacks on the World Trade Center.

Second, in State service but performing duties of Federal interest, in Title 32 status. This status involves State command and control, but Federal payment of costs.

Third, in Federal Title 10 status, when the National Guard is mobilized to serve under the direction of the President or the Secretary of Defense. Significantly, the

Commander of Northern Command will have command authority over the Guard only when it is serving in Title 10 status. In all other cases, command authority over the Guard's activities remains with State governors.

These arrangements have worked well in the past. The challenge today is to translate them into our new security environment. There are many proposals for doing so, and we'll work with the NSC, HSC, DHS, Congress, and the governors to make certain that we have an approach that meets the Nation's needs.

THE DEPARTMENT OF DEFENSE-DEPARTMENT OF HOMELAND SECURITY RELATIONSHIP

March the 1st marked an historic day for the Federal Government. Over 170,000 employees from more than 20 different agencies officially became part of the Department of Homeland Security, creating a more effective, organized and united defense of our homeland. The Department of Homeland Security is a vital and important step in reorganizing our government to meet the threats of a new era as we continue the work of securing our Nation.

As noted earlier, the Secretary of Defense has made a public commitment to work closely with the new Department of Homeland Security in order to coordinate the respective responsibilities. DOD and DHS have complementary missions and capabilities. In general, the Department of Defense is responsible for homeland defense missions—to defend the land, maritime, and aerospace approaches from external threats—while the Department of Homeland Security will be responsible for major elements of domestic security and civil preparedness. DOD will also provide military assistance to U.S. civil authorities in accordance with U.S. law, as directed by the President and the Secretary of Defense. For example, such assistance could include support for incidence management operations led by the Department of Homeland Security when authorized by the President or the Secretary of Defense. There will be an ongoing requirement for U.S. Northern Command to coordinate plans, exercises, and training with the operating components of DHS.

As the Assistant Secretary of Defense for Homeland Defense, I will supervise all DOD homeland defense activities, including combatant command capabilities, consistent with the Secretary's direction and without interfering with the chain of command, and will coordinate all requests for assistance and cooperative ventures between the Department of Defense and the Department of Homeland Security.

THE DEPARTMENT OF DEFENSE AND FIRST RESPONDERS

DOD is eager to continue a long tradition of providing specialized capabilities, technology, and training to first responders. In addition, in situations where civilian authority capabilities to deal with emergencies is overwhelmed, DOD can provide unique assistance support of first responders. Some of these capabilities include those provided by the U.S. Northern Command's Joint Task Force Civil Support, the National Guard Weapons of Mass Destruction Civil Support Teams (WMD–CST), the Chemical-Biological Incident Response Force (CBIRF), the Chemical/Biological-Rapid Response Team (CBRRT), explosives detection, technical escort, and medical services.

DOD participates in many interagency efforts to transfer applicable technologies to first responders. For example, DOD invests around $100 million annually in the Technical Support Working Group (TSWG). The TSWG is a broad, interagency group that brings together nearly 20 Federal agencies to develop, test, and field technology that would protect U.S. forces from terrorist attacks. These technologies also typically are applicable to first responders and other homeland security missions.

DOD, through the Assistant to the Secretary of Defense for Chemical and Biological Defense, funds and participates in the InterAgency Board for Equipment Interoperability and Standardization (IAB). The IAB is a user-working group supported by voluntary participation from various local, State emergency responders, Federal Government, and private organizations. It is designed to help achieve standardization, interoperability, and responder safety and to better prepare emergency responders to respond to, mitigate, and recover from any incident by identifying and advocating requirements for Chemical, Biological, Radiological, Nuclear or Explosives (CBRNE) incident response equipment. The IAB publishes annually the Standardized Equipment List (SEL) that is utilized by National Institute of Justice in their grant process to guide State and locals on procurement of equipment for WMD preparedness.

Section 1401 of the Fiscal Year 2003 Bob Stump National Defense Authorization Act directed the Secretary of Defense to appoint a senior individual to ensure transfer of technology and equipment to emergency responders and the civilian sector.

DOD also provides first responder training at a variety of installations around the country. These programs—at facilities like the Chemical School, Maneuver Support Center, and the Chemical Defense Training Facility at Fort Leonard Wood, Missouri, and the Defense Nuclear Weapons School operated by the Defense Threat Reduction Agency at Kirtland Air Force Base, New Mexico—train DOD, State, and local responders to recognize and react to weapons of mass destruction and disaster situations.

From local to national level, the Defense Department is an active participant in military/civilian training exercises. In fact, this year, elements of the Defense Department are scheduled to participate in exercises with Federal entities such as the Department of Homeland Security, the Environmental Protection Agency (EPA), the Nuclear Regulatory Commission, States such as Iowa, Utah, and Texas, and in cities such as Colorado Springs, Colorado, Seattle, Washington, and Winterburg, Arizona. Whether we are talking about a TOPOFF tabletop exercise in Washington, D.C. to examine the national response to a weapon of mass destruction attack or a Regional Readiness Workshop in Anchorage, Alaska to examine how the Federal, State, and local authorities cooperate to deal with the aftermath of an earthquake, such exercises forge realistic expectations, foster a firm understanding of roles and responsibilities, identify best practices, and highlight shortfalls that must be overcome.

Some in Congress have expressed concerns that many first responders are also members of the military's Reserve component and that they may be called from their important local roles to fulfill their military missions. The Defense Department shares this concern. This is why, since 1979, the Defense Department has managed a screening program to ensure that civilian employers can identify critical positions that cannot be filled with personnel who are subject to mobilization. This program is intended to minimize conflicts between employees' military service obligations and their civilian employment requirements during times of war or national emergency.

Due to the unique nature of the current emergency, which requires not only mobilization of the Ready Reserve but also the careful protection of public health and safety, the Defense Department has established a special process to accommodate individual requests from Federal and non-Federal agencies to submit mobilization exemption or delay for their employees who are Ready reservists, based on the critical nature of their civilian employment. DOD considers these requests on a case-by-case basis. Ready reservists who are granted exemption from mobilization are transferred to the Standby Ready Reserve or the Retired Reserve, or discharged, as appropriate.

DOD is also in the process of establishing a mandatory Civilian Employment Information program. This new program will require the collection of both employee and employer related information. The Department's intent is to permit the military to fulfill mobilization requirements, while avoiding the dilemma outlined by some Members of Congress.

CONCLUSION

In conclusion, the department and agencies—Federal, State, and local—charged with protecting American people and property share a common goal: to assure the security of American citizens, territory, and sovereignty. The Defense Department plays a proud role in the security of our Nation and will continue to work closely with others that share this responsibility. America's men and women in uniform stand ready to defend the Nation both at home and abroad.

Thank you, Mr. Chairman.

Chairman WARNER. Thank you very much, Mr. Secretary.

General Eberhart.

STATEMENT OF GEN. RALPH E. EBERHART, USAF, COMMANDER, UNITED STATES NORTHERN COMMAND

General EBERHART. Mr. Chairman, Senator Levin, distinguished members of the committee: I thank you for this opportunity to appear before you once again. I also thank you for your continued support of and commitment to a strong national defense, and especially the way you support those men and women who serve this great Nation and their families, especially those in harm's way.

Chairman WARNER. Would you bring the microphone up closer.

General EBERHART. I am sorry, sir.

Chairman WARNER. You are not carrying your voice well.

General EBERHART. Is this better?

Chairman WARNER. It is better.

General EBERHART. Excuse me.

It is also a pleasure to serve with the two gentlemen with me today. As Secretary McHale has said, we are not only professional colleagues, but we are also close personal friends. I can tell you in the 2 months that he has been on board he has certainly made a difference in focusing the Department on homeland defense and homeland security.

To my left, Admiral Jim Ellis. As has been said, we have worked hard over the last year to establish our two new unified commands. There is a very special relationship between Strategic Command and NORAD and Northern Command when you look at aerospace warning, aerospace control, and in the future as you look toward missile defense.

Although I have been asked this morning to appear as Commander of Northern Command, I would like to speak briefly about NORAD, a very special binational relationship that has served Canada and the United States exceedingly well since 1958. The professional actions of those men and women in the aftermath of September 11 mentioned by Senator Kennedy, those at Otis among them, I am convinced have served to protect our population centers and our key infrastructure from air attack to this day. They have flown over 29,000 sorties collectively without an incident or an accident, which attests to their skill and expertise.

Now let us turn to Northern Command. Northern Command is first and foremost a U.S. unified command, a construct that we adopted with the National Security Act of 1947. In fact, December of that year European Command, Pacific Command, and Southern Command were established. We decided at that time, because we were protected by two wide oceans and two friendly nations, that we did not need that command structure in North America.

Then in 1958, because of the threat of Soviet long-range aviation and intercontinental ballistic missiles (ICBM), we established NORAD, but their responsibility was for air and space, not for land and sea.

In the aftermath of September 11, it became apparent to the Secretary of Defense and the President that we were violating a principle of military command and control, that we did not have centralized command and control, decentralized execution. The President and the Secretary had to go to several different commanders that day to craft our reaction to those tragic events of September 11.

So they decided and, with your support, they established Northern Command in October of this last year. Again, this is first and foremost a U.S. unified command; job number one, national security, homeland defense, defense against foreign aggression. However, this command is in fact different, as Secretary McHale has alluded to, in that our homeland is in our area of responsibility. So we have the secondary mission, which will be our prominent mission in the near future in my view, and that is providing support to civil authority, one-stop shopping, if you will, for Federal forces to be used however the President and the Secretary of Defense de-

cide is the right way to use it to protect the men and women of this great Nation.

I believe that, as you look at where we were a year ago or 6 months ago or 3 months ago, we have come a long way. Mr. Chairman, you and I discussed during the confirmation hearing initial operational capability and full operational capability (FOC), and you cautioned me not to wait, to press ahead as fast as we possibly can, and we have done just that. In fact, I believe that we are farther along than I would have dreamed possible last year at this time or even 1 October, right around the time that we discussed it.

But we still have a long way to go. In fact, I would offer to you that we should never be satisfied with our status in terms of homeland defense and homeland security. We need to continue to advance the ball. We need to continue to get better, because I guarantee you the bad guy out there, those who wish us harm, are figuring out ways as we speak today to attack us and what is near and dear to us.

As the Secretary of Defense has said, this is important business. This is mission number one, to protect the men and women of this great Nation where they live and work.

I look forward to your questions.

[The prepared statement of General Eberhart follows:]

PREPARED STATEMENT BY GEN. RALPH E. EBERHART, USAF

Chairman Warner, Senator Levin, and members of the committee:

It is an honor to appear before this committee again, and to represent the outstanding men and women of North American Aerospace Defense Command and United States Northern Command. The soldiers, sailors, airmen, marines, coast guardsmen, national guardsmen, reservists, and civilians serving in our Commands are truly the "best of the best," and give our two great nations—the United States and Canada—every reason to be proud.

NORAD

Our number one priority is to strengthen aerospace warning and control of United States and Canadian airspace. Prior to 11 September 2001, we focused on threats originating from outside North America. As a result of these terrorist attacks, we now also look for threats from within our borders.

Thanks in large part to the timely passage of the Fiscal Year 2002 Defense Emergency Response Fund, today we have connectivity with 70 FAA long-range interior en route radars, better ground-to-air communications, and a robust coordination capability to provide comprehensive coverage of our airspace.

Throughout this integration effort, the FAA has been very responsive to our requests for technical assistance. This strong partnership of dedicated people is committed to further improving our ability to protect the Nation's airspace.

Operation Noble Eagle. NORAD defends North America from domestic air threats through Operation Noble Eagle. Across the United States and Canada, armed fighters are on alert and flying irregular combat air patrols to identify and intercept suspect aircraft. Since 11 September 2001, we have flown over 28,000 sorties to deter, prevent and defend against potential terrorist attacks, without a single mishap. This tremendous accomplishment is a tribute to the professionalism and perseverance of the men and women executing these missions.

In addition, we are supporting homeland defense operations with a layered air defense of the National Capital Region. We have developed new relationships across the DOD and with interagency partners to establish a comprehensive shield to guard our Nation's capital.

To maintain our warfighting edge, we routinely exercise and evaluate our ability to defend against the full spectrum of air threats. United States' and Canadian civil agencies continue to make air travel safer through increased airport and aircraft security measures. However, if called, we stand ready as the last line of defense against threats within our airspace.

North American Air Surveillance Plan. In our efforts to provide the best possible coverage of North America, we have teamed with the FAA and North American Air Surveillance Council to further enhance our wide-area surveillance capabilities. There has been an outstanding level of interagency cooperation to develop a comprehensive North American Air Surveillance Plan that addresses our requirements to detect, identify and classify all aircraft within North American airspace. We look forward to fielding expanded capabilities that track even smaller, low-altitude threats.

NORAD'S RELATIONSHIPS

USNORTHCOM. NORAD and USNORTHCOM are two separate commands. Neither command is subordinate to the other or a part of the other, but we work very closely together. Members of the two commands work side-by-side within the Cheyenne Mountain Operations Center and, in many cases, United States military members are dual-hatted in positions on both staffs.

Bi-National Planning Group. The Departments of Defense and State have been working with their counterparts in Canada to develop additional areas of cooperation to better protect our citizens. One promising outcome of this collaboration is an agreement to establish a Bi-National Planning Group for a 2-year term.

This group will identify additional ways to protect our citizens and strengthen air, land and maritime defense of North America, while respecting the national interests and sovereignty of each nation. Members have already begun arriving and will be appended to NORAD.

USNORTHCOM

On 1 October 2002, the President established USNORTHCOM as a regional combatant command to provide "unity of command" for United States military actions that counter threats to our homeland from the air, land, or sea domain. We are just like the other regional combatant commands, with one important difference—the United States homeland is in our area of responsibility.

We conduct operations to deter, prevent, and defeat threats and aggression aimed at the United States, its territories and interests. We also provide military assistance to civil authorities, when directed by the President or the Secretary of Defense. When we work with civil authorities, we will most likely be in a support role to a lead Federal agency, providing "one-stop shopping" for Federal military assistance. The President's decision to establish USNORTHCOM has enhanced the DOD's ability to provide quick, responsive support, when and where needed.

Organization. USNORTHCOM has few permanently assigned forces. Whenever mission requirements dictate, we will request additional forces from the Secretary of Defense, and if approved, receive them from our force provider, United States Joint Forces Command. Our day-to-day operations are conducted by three subordinate commands:

- The Joint Force Headquarters—Homeland Security supports land and maritime defense planning for the continental United States, and provides military assistance to civil authorities.
- The Joint Task Force—Civil Support provides command and control of consequence management forces that respond to chemical, biological, radiological, nuclear, and high-yield explosive events.
- The Joint Task Force—6 provides support to Federal, State, and local counterdrug law enforcement agencies.

Exercises. Over the past several months, we have trained and exercised with 55 Federal, State, and local agencies across a broad spectrum of scenarios. During Unified Defense 02–2 in September 2002, we validated our initial capability to command and control forces in response to future attacks. Most recently, in February 2003, we completed a second major exercise, Unified Defense 03–01, to strengthen the trusted relationships we need with interagency partners to defend our Nation's homeland.

Current Operations. We have demonstrated our ability to conduct operations in a number of emergency situations. During the Washington, DC, sniper attacks, we coordinated aerial surveillance for the Federal Bureau of Investigation's (FBI) efforts. Most recently, we supported military operations in the aftermath of the Space Shuttle Columbia tragedy. As directed by the Secretary of Defense, we established a response task force to provide command and control for DOD resources and units, in support of the Federal Emergency Management Agency (FEMA).

We have also been called upon to conduct operations in support of pre-planned events. In October 2002, using forces provided by United States Pacific Command, we supported the President's attendance at the Asia Pacific Economic Cooperation

Conference in Los Cabos, Mexico. In January 2003, we provided command and control of all military support to the State of the Union Address, to include security, emergency medical, and chemical and biological response forces.

Emergency Preparedness and Response. We have the capability to assist local responders and lead Federal agencies in their response to a bioterrorism incident. Although biohazard investigative expertise exists in most local and State health departments and in the Federal Centers for Disease Control and Prevention, these resources may become overwhelmed in emergency circumstances. When directed by the President or Secretary of Defense, we will provide bioterrorism experts to a lead Federal agency to help prevent or contain a situation. Likewise, we are ready to provide field medical units, as well as logistics, transportation and security capabilities to assist Federal, State, and local agencies, as required.

USNORTHCOM'S CHALLENGES

Intelligence. Homeland defense relies on the sharing of actionable intelligence among the appropriate Federal, State, and local agencies. Our Combined Intelligence and Fusion Center collates and analyzes data from the United States Intelligence Community and nearly 50 different government agencies. One of our greatest challenges lies in sifting through the volumes of intelligence and operational data from these sources. Our goal is to help connect the dots to create a clear threat picture, playing our appropriate military role as part of the interagency team. Another shared challenge is to overcome cultural and procedural differences among the DOD and other departments for information that is collected, categorized, classified, analyzed and disseminated.

Homeland Command, Control, and Communications. We need to be able to command and control forces and to coordinate planning and operations with agencies at the Federal, State, and local levels. Interoperable communication architectures and trusted information exchange environments provide the framework for coordinated operations. We have ongoing efforts with our homeland defense and civil support partners to upgrade existing architectures and to better integrate our information collection and exchange capabilities.

Ballistic Missile Defense. We are working with the Missile Defense Agency, United States Strategic Command and other combatant commands to develop the Concept of Operations that will ensure the United States has an effective missile defense capability by the fall of 2004.

Posse Comitatus. We will remain vigilant in ensuring that USNORTHCOM is used in accordance with the laws of our great Nation—respecting the rights and liberties of every American. We understand the Posse Comitatus Act and related laws and the clear limits placed on military support to civil law enforcement. We believe the act, as amended, provides the authority we need to do our job, and no modification is needed at this time.

USNORTHCOM'S RELATIONSHIPS

Our command is built upon a total force and total national team concept that includes members from all five Services, the National Guard, the Reserves, DOD civilians and numerous Federal, State, and local agencies. We believe we are redefining "jointness" by forming new partnerships within the DOD and with numerous civilian agencies, as well as strengthening existing ones. Developing these strong relationships is key to our success.

Department of Homeland Security. The Secretary of Defense will coordinate with the Secretary of Homeland Security on policy and resource issues. In accordance with decisions by the Secretary of Defense, we will work with various sectors of the Department of Homeland Security on operational planning, training and execution.

Assistant Secretary of Defense for Homeland Defense (ASD(HD)). We have frequent interaction with Paul McHale on a broad range of issues. As ASD(HD), his principal duty is the overall supervision of the homeland defense activities of the DOD.

Other Combatant Commands. We have established a conceptual framework with Admiral Jim Ellis, Commander, United States Strategic Command; Admiral Ed Giambastiani, Commander, United States Joint Forces Command; and General Charlie Holland, Commander, United States Special Operations Command to secure the homeland. We are also working closely with the regional combatant commanders to eliminate threats to our homeland from afar. Our focus is to address gaps in coverage and any overlapping responsibilities to ensure that we provide an integrated defense for our citizens at home and abroad.

National Guard. We have a close relationship with the National Guard Bureau, which is enhanced even more by having Major General Steve Blum, an Army Na-

tional Guardsman, as our Chief of Staff. We believe that no force is better suited to help deter, prevent, and defeat many of the threats we face than today's National Guard. Through the National Guard Bureau, USNORTHCOM coordinates with State headquarters for planning purposes and maintains situational awareness of National Guard actions and commitments.

To support our missions of homeland defense and military assistance to civil authorities, we are looking at the feasibility of evolving the current mobilization process into something closer to the current air defense model used by the Air National Guard in support of NORAD's mission. Specifically, Air National Guard fighter units of 1st Air Force have been successfully employing instantaneous Title 10 USC orders for several years. These orders allow an individual to volunteer, with consent of the Governor, to be federalized for specific missions prior to execution. We believe we can achieve a higher level of readiness if we apply the air defense mobilization model to the existing National Guard response forces, when needed in a Federal capacity.

Coast Guard Maritime defense missions involve traditional military activities such as combat air patrols and naval operations within our area of responsibility. In these cases, we would take the lead and the Coast Guard would likely be called upon for support. It is important to note that the Coast Guard does not report to USNORTHCOM, although we do have several Coast Guardsmen on our staff, including Rear Admiral Jim Van Sice, who serves as our Deputy Director of Operations. The Coast Guard is in the Department of Homeland Security, and any requests for Coast Guard assistance to DOD would come from the Secretary of Defense to the Secretary of Homeland Security.

By contrast, the Coast Guard would be the lead Federal agency for maritime homeland security. When directed, we would support Coast Guard homeland security missions through our naval component commander. This support might include maritime air surveillance, the use of naval surface combatants with Coast Guard Law Enforcement Detachments onboard, or the use of specialized DOD capabilities.

Interagency. We are leveraging the unique capabilities and expertise of Federal, State, and local agencies to protect our homeland. Our Joint Interagency Coordination Group is working to help synchronize interagency plans, exercises and operations. In addition, we have a growing number of liaison officers in our headquarters staff at Peterson Air Force Base, to include the FBI, Central Intelligence Agency, FEMA, and the National Imagery and Mapping Administration.

POTENTIAL FUTURE CAPABILITIES AND MISSIONS FOR NORAD AND USNORTHCOM

We continue to address critical command and control challenges highlighted by the terrorist attacks on our homeland. We are committed to improving our situational awareness by developing a common operating picture for the air, land and maritime domains.

Combatant Commanders' Integrated Command and Control System. We are pursuing ways to leverage the Combatant Commanders' Integrated Command and Control System to modernize our aging 60's era air and missile warning systems and infrastructure. This will allow us to migrate to our next-generation Battle Control System and provide the foundation for a fully integrated NORAD–USNORTHCOM command and control capability.

Battle Control System. The upgraded Battle Control System will provide connectivity with a wide array of radars and sensors across North America, thereby giving our homeland a more integrated air defense capability. As future increments are fielded, we will be able to process air defense data faster, as well as improve our battlespace awareness.

High Altitude Airship (HAA) Advanced Concept Technology Demonstration. The Office of the Secretary of Defense, the Missile Defense Agency, the United States Army and NORAD are spearheading the effort to demonstrate the technical feasibility of an unmanned, untethered, long-duration HAA. The prototype airship will stay airborne for 1 month and carry a 4,000-pound payload. We expect the objective HAA to have the capability to stay airborne for up to a year and carry a payload greater than 4,000 pounds. A robust HAA capability would give warfighters persistent wide-area surveillance of the battlespace against a full spectrum of air, land and sea threats.

Homeland Security Command and Control Advanced Concept Technology Demonstration. USNORTHCOM is sponsoring this Advanced Concept Technology Demonstration to provide the DOD homeland security community with operationally relevant command and control capabilities. This initiative will help us rapidly insert mission-enhancing technologies and promote information sharing, collaboration and decision-making in a trusted information exchange environment.

CONCLUSION

We are grateful for everything the members of this committee have done to ensure our ability to defend our homeland. The National Defense Authorization Act for Fiscal Year 2003 reflects your commitment to our mission, as well as to our servicemen and women, and we appreciate your continued support. With your help, our Nation will be safer tomorrow than it is today. I am honored to appear before you, and look forward to your questions.

Chairman WARNER. Thank you very much, General.

Admiral Ellis.

STATEMENT OF ADM. JAMES O. ELLIS, JR., USN, COMMANDER, UNITED STATES STRATEGIC COMMAND

Admiral ELLIS. Thank you, Mr. Chairman, Senator Levin, distinguished members of the committee. I, too, have a prepared statement that I would like to submit for the record.

Chairman WARNER. Without objection, all statements in their entirety will be made a part of the record.

Admiral ELLIS. Thank you, sir.

It is an honor to appear before you all once again representing, as always, the outstanding members of the United States STRATCOM, men, women, military, civilian, Active and Reserve alike. I am pleased again to share the panel with Secretary McHale and General Ed Eberhart. As Ed noted, during the last several months he and I have worked closely together through the creation of our two new unified commands, and the United States Strategic Command looks forward to developing a similarly productive relationship with Secretary McHale and his staff in the months ahead.

As you have already noted, Mr. Chairman, ours is a new United States Strategic Command. It is a reflection of the new international security environment we must all work to effectively address together. It is a reflection of the recommendations of the Space Commission, the Quadrennial Defense Review (QDR), and the Nuclear Posture Review (NPR). Finally, it is a reflection of the clear guidance the President gave to the Department to challenge the status quo and envision a new architecture of American defense.

The new United States Strategic Command was created first and foremost to provide responsive, integrated, and synchronized combat capability and support across geographic boundaries. As has already been noted, in a global sense, every combatant command is employed in defending our homeland and this Nation's interests. The United States Strategic Command is responsible for the integration of intelligence, information operations, and the national strategic arsenal in their support.

I am convinced that the alignment of responsibility for our Nation's on-orbit capabilities under the same unified command that now has global responsibilities in four previously unassigned mission areas has created new opportunities to shape our future. I am committed to working with our strong and growing team of partners to address each one of these new capabilities. We are crafting not just a vision, but a clear and detailed course of action in every mission area.

Since the United States Strategic Command was established last fall on the 1st of October, we have provided significant support to the Nation and the regional combatant commanders. Examples in-

clude: deploying intelligence, planning, space, and information operations experts to theaters of interest around the globe, including United States Central Command (CENTCOM); optimizing communications, bandwidth, and global positioning system performance for ongoing combat operations; and providing 24 hours a day, 7 days a week missile warning to our forces in the field and to General Ed Eberhart for his AOR, our homeland.

We have led the intelligence community effort to find and characterize underground facilities in Afghanistan and other countries. We have used our on-orbit systems for battle damage assessments, targeting, as well as for providing data to the ongoing analysis being conducted by Admiral Gehman and the Space Shuttle Columbia mishap investigation team.

We remain committed to the Nation's deterrent capability resident in our stockpile and the delivery systems and to retaining and advancing the United States' position as the preeminent spacefaring nation.

One of our new missions, integrating missile defense across all areas of responsibilities, will be very important to enhanced homeland security. Strategic Command's role in missile defense is to develop a global concept of operations for a multi-capability system with an integrated command and control architecture to work seamlessly across all of the regional combatant commands, a demanding task.

Response time to defend against an enemy missile attack will be short. Therefore, streamlined organizational structures and precise guidance must be drafted and wargamed in advance of the initial defensive operations goal of fiscal year 2004.

This is a very exciting time for the professionals at United States Strategic Command. We have tremendous opportunities ahead of us and are engaged in charting the course for meeting our future warfighting needs. To pursue these needs, we will advocate for advanced conventional capabilities, support the sustainment and modernization of our nuclear deterrent force, sustain and further operationalize the tremendous capability our on-orbit assets bring to the Nation, and develop and maintain a cadre of highly trained strategic, space, and information operations professionals.

Never before has such a broad array of missions been combined under one combatant command. We are aggressively building the right teams, the right structure, and the right plans to move confidently from concept of operation to tangible combat capability. We are leveraging our historic strategic planning expertise and our space and information operations and regional support heritage to become a more globally focused operational headquarters, one that is better equipped to provide the combat capabilities required by our national leaders and support the warfighters in the defense of this great Nation.

Thank you and I look forward to your questions, Mr. Chairman.

[The prepared statement of Admiral Ellis follows:]

PREPARED STATEMENT BY ADM. JAMES O. ELLIS, USN

Mr. Chairman, Senator Nelson, and distinguished members of the committee, it is an honor to again appear before you, representing the outstanding men and women of United States Strategic Command, to address the strategic issues that remain so vital to the Nation. As you recall, during our last hearing we discussed

space operations, allowing us to focus today on strategic deterrence and the actions underway to shape a dramatically different strategic future.

U.S. Strategic Command, our components, and our task forces are crafting an entirely new command, instrumental in fighting the war on terrorism, deterring a wider array of potential adversaries, and focused on recasting the Nation's global military capabilities for the demands of the 21st century.

We are drawing on the best elements of both U.S. Space Command and U.S. Strategic Command in order to eliminate seams, broaden oversight and streamline responsibilities. Significant reductions in the level of operationally deployed strategic nuclear weapons have begun in compliance with Presidential direction, the NPR and the Moscow Treaty while continuing to meet our obligations under the Strategic Arms Reduction Treaty (START). Associated deactivation or modification of strategic delivery platforms is also well underway.

STRATCOM continues to deploy or provide intelligence, planning, targeting, space, and information operations expertise to operations in U.S. Central Command and around the world. We have reshaped and streamlined the command's component and organizational structure to enable an integrated and trans-regional approach to matching global capabilities to global challenges. Importantly, we also completed a comprehensive update to our deterrent force plans to reflect the needs of the new international security environment.

While these efforts are critical, they represent only the first steps toward a much broader vision of our strategic future. On January 10, 2003, the President signed Change Two to the Unified Command Plan (UCP) and tasked us specifically with four previously unassigned responsibilities. These are: global strike, missile defense integration, Department of Defense information operations, and command, control, communications, computers, intelligence, surveillance, and reconnaissance (C^4ISR). This unique combination of roles, capabilities, and authorities under a single unified command will bring new opportunities in the strategic arena, in addition to further refining the global opportunities to support the regional combatant commanders.

We are quickly integrating the efforts of our strong and growing team of service, agency, national laboratory, and intelligence community partners to define specific goals, identify milestones and quantify the progress of our collective efforts. Today, the new U.S. Strategic Command is improving our Nation's joint combat effectiveness by modernizing systems, streamlining processes, and providing a broader range of fully integrated mission capabilities to the warfighter and to our Nation's leaders.

THE FUTURE OF OUR NUCLEAR FORCE STRUCTURE

I am proud to again report that our Nation's nuclear deterrent forces remain fully ready. They are manned by a cadre of true professionals who, around the world and around the clock, effectively support the nuclear pillar of our national security strategy. For more than 56 years, Strategic Air Command and the former U.S. Strategic Command stood at the ready, supporting deterrence through rigorous and disciplined planning, effective training, and robust command and control of our Nation's strategic nuclear forces. The professionals of the new U.S. Strategic Command still willingly shoulder that enormous responsibility. We remain fully confident that STRATCOM's readiness, and that of our service components, is the most effective guarantee that the use of these weapons will never be required. As we reshape our organization and assume broader responsibilities, we remain committed to rigorously ensuring the continued safety and surety of our nuclear arsenal and delivery systems. Zero defects remain our standard.

We are making prudent and measurable progress in achieving the President's goal, codified in the Moscow Treaty, of between 1,700 to 2,200 operationally deployed strategic nuclear warheads by the year 2012. Air Force Space Command, our Air Force component, began deactivation of Peacekeeper ICBMs on 1 October 2002. This effort remains on schedule and will be complete by 2005. The Navy removed two Trident submarines, U.S.S. *Ohio* and U.S.S. *Florida,* from strategic service in fiscal year 2003, to be followed in fiscal year 2004 by U.S.S. *Michigan* and U.S.S. *Georgia.* All four of these capable vessels will be modified into Tomahawk cruise missile carriers, designated SSGN, by the end of 2007. They will also provide a tremendous increase in the size and sustainability of support to our special operations forces. With the 1996 re-role of the B–1 to a non-nuclear role, we are moving to retire several hundred gravity weapons in fiscal year 2003, and are finalizing plans to remove many of the oldest ICBM warheads from the Nation's active nuclear stockpile.

SUSTAINMENT AND MODERNIZATION

With no new nuclear systems under development, the important task of sustaining and modernizing our Nation's aging weapons and delivery platforms must be carefully managed and appropriately resourced. These forces must remain a ready, reliable, and credible element of our Nation's security posture. Other than the Navy's submarine launched D–5 missile, still in low-rate production, we are no longer building any of the weapons or platforms that comprise our strategic forces. We appreciate your continued strong support, through service and agency programs, of our key weapon, delivery platform, and communications life extension and upgrade programs. These include:

- Minuteman III Guidance Replacement Program (GRP), replaces aging electronic components and updates software to preserve reliability, maintain accuracy, and ensure supportability through 2020. The GRP is the foundation of MMIII modernization and is being completed at the rate of 80 per year, with 140 deployed to date.
- Minuteman III Propulsion Replacement Program (PRP), corrects age-related degrades by repouring the propellant in stages I and II, and remanufactures stage III. PRP requires GRP software for fielding, and must be sequenced appropriately. It is programmed at the rate of 96 per year, with 49 boosters deployed to date.
- B–52 Avionics Mid-life Improvement, one of STRATCOM's highest priorities, and AEHF upgrade, to ensure mission capability and assured connectivity as this aircraft continues to establish new benchmarks in service longevity.
- D5 SLBM Life Extension and Backfit Programs, will provide a standardized fleet of 14 SSBNs for the full hull life of the Trident II. Two of four SSBNs have completed backfit with the remaining two scheduled for completion in fiscal year 2006 and fiscal year 2007. D5 life extension requires replacement of guidance and missile electronics on fielded D5 missiles, and procurement of 115 additional missiles to meet reliability testing needs over the 14-year life extension of the hull. The D5 Life Extension Program is adequately funded and on schedule for initial operational capability in fiscal year 2013.
- B–2 communications upgrade, which may require acceleration in future years to ensure secure and survivable connectivity as AEHF replaces MILSTAR.
- Strategic War Planning System (SWPS), which recently completed an initial upgrade and is now entering a new phase. This new modernization effort will incorporate the flexibility and responsiveness envisioned by the Nuclear Posture Review and broadened to support our newly assigned nonnuclear strategic and regional support missions.
- Combatant Commanders Integrated Command and Control System (C2IC2S), which will replace aging and unsustainable NORAD/U.S. Strategic Command mission-unique battle management systems with a single, open architecture. C2IC2S is on track to incrementally deliver warfighting C2 capability for NORAD in late fiscal year 2004, strategic missile warning in early fiscal year 2006, with space surveillance and control capabilities being delivered from fiscal year 2003 through fiscal year 2008.

In addition to our vital life extension and modernization programs, we are working closely with our partners in the Departments of Defense and Energy, and Congress to ensure our nuclear stockpile remains safe, reliable, and credible. As the Nation's nuclear stockpile continues to age, we must carefully monitor its condition. Through the National Nuclear Security Administration's (NNSA) science-based Stockpile Stewardship Program, we continue to improve our surveillance, modeling, simulation tools and processes in order to provide the critical data on aging effects, component reliability and physics phenomena we require in the absence of nuclear weapon testing. Past drawdowns in nuclear weapon infrastructure require that the essential warhead life extension programs be carefully sequenced with scheduled warhead dismantlement so as to provide just-in-time delivery to meet operational deterrent force requirements. We are working closely with the NNSA, the national labs and plants to shape their support to our future stockpile. With the production complex operating near its peak capacity, we will need to optimize the balance between essential life extension programs and dismantlement work.

Annually, at the direction of the President, I provide a nuclear weapon stockpile assessment to the Secretary of Defense. In my last assessment, based on the information provided by my staff and independent advice from our expert Strategic Advisory Group, I outlined my confidence in the safety and reliability of the stockpile.

This is the first time since the program began in 1996 that a STRATCOM assessment did not indicate a decline in confidence in the reliability of the stockpile. I attribute this directly to the continued improvements in and funding for the Stockpile Stewardship Program, to the steps taken by NNSA and the Services to diligently address previously reported technical issues, and to the progress of the ongoing life extension programs. I agree with the rigorous technical analysis conducted, and confirmed to the Secretary there is currently no need to consider resumption of nuclear testing. I appreciate your strong support for funding of the NNSA, enabling continuation of their important work.

As we continue to sustain and modernize our forces, we are also working closely with the Services and the Department of Energy to address the critical anti-terrorism and force protection requirements associated with safeguarding the Nation's nuclear systems. The ongoing Mighty Guardian exercise series and the Nuclear Command and Control System Federal Advisory Committee End-to-End Review have helped the Services and the Department of Energy better focus their security efforts. While the changing character of the postulated threats requires continuous evaluation, I believe the Services are making concrete improvements in physical security, though much remains to be done. We will continue to encourage this effort through the STRATCOM Integrated Priority List and will remain an active participant in the creation of implementation guidance that will flow from completed Office of the Secretary of Defense policy studies such as the NPR and the End-to-End Review.

FUTURE ENHANCED CAPABILITIES

It is well known that much of our current military capability was designed or procured for a dramatically different international security environment. This is especially true of our Nation's deterrent forces. Though sustainment and modernization of these systems remains essential, equally important is the examination of future concepts and the contribution they could make to our deterrent posture. A fundamental assumption of the Nuclear Posture Review is that a mix of advanced capabilities, some yet to be designed, that include conventional, non-kinetic, special operations and nuclear, is needed in order to offer the broadest range of options to our Nation's leaders. Such a spectrum of capabilities will both enable the planned NPR draw down in operationally deployed strategic nuclear weapons and form part of a New Triad of deterrence in support of the President's goal of reduced reliance on nuclear weapons. While there are certainly significant policy issues associated with this transformational effort, it is also true that much laboratory research and development, detailed analytical study and advanced simulation efforts are an essential underpinning to such a fact-based dialogue. A number of organizations, including the Department of Defense and the Defense Science Board have nascent reviews underway. As the Secretary of Defense has noted, these studies are intended to consider and weigh alternatives and in no way pre-suppose decisions as to detailed design, production or deployment.

Advanced Conventional Capabilities and Global Strike

U.S. Strategic Command's newly assigned global strike mission extends our longstanding and globally focused deterrent capabilities to the broader spectrum of conflict. We will incorporate conventional, non-kinetic, and special operations capabilities into a full-spectrum contingency arsenal and into the Nation's strategic war plan to further reduce our reliance on nuclear weapons. This innovative approach will enable the command to deliberately and adaptively plan and rapidly deliver limited-duration, non-nuclear combat power anywhere in the world. Our intent is to provide a wide range of advanced options to the President in responding to time-critical, high-threat, global challenges and, thereby, raise even higher the nuclear threshold.

As envisioned, global strike could be decisively conducted at the direction of our most senior civilian leaders. It also represents a powerful tool in support of the regional combatant commander, essentially increasing the forces and options he has available to deter and engage an adversary. In either case, global strike will provide the Nation the ability to engage priority targets by moving rapidly from actionable intelligence, through adaptive planning, to senior-level decision-making and the delivery of kinetic or non-kinetic effects across thousands of miles. It can provide what may be the most critical element early in the fight—time. As a regional combatant commander assembles and moves forces into position or needs to strike into temporarily denied areas, U.S. Strategic Command can provide early planning and tangible, long-range combat capability. We are initially building this capability around the bomber force, and are bringing the B–1 back into our force structure in its purely conventional role. This committee's continued support of advanced conventional weapons initiatives such as the SSGN will assist in our immediate efforts to im-

prove joint warfighting effectiveness. We continue to study concepts such as conventional ballistic missiles, Common Aerospace Vehicles, hypersonic aircraft, and unmanned combat aerial vehicles that could play a significant role in improving our global strike capabilities in the mid- to long-term.

Information Operations (IO)

Delivering on the promise of information operations is one of U.S. Strategic Command's top priorities. Incorporating computer network attack and defense, electronic warfare, psychological operations, strategic deception and operational security, this nascent mission area promises to dramatically improve our offensive and defensive capabilities, and may play a large role in shaping the size and character of future force structures. Quite simply, I believe that integrated IO comprise the next revolution in warfighting, and our new role as the integrator of DOD information operations will bring a joint perspective to improvements in capabilities, ensure ready access to IO planning, reduce stovepipes, test and validate new capabilities, and provide a responsive command and control system to the Nation's civilian leaders and combatant commanders.

Our current vision has U.S. Strategic Command serving as the central IO armory. While we need not own service and agency IO programs, or execute all IO missions, we must have full insight and access to all DOD IO capabilities as well as execution capability for strategic efforts. We will capitalize on our proven expertise in detailed intelligence collection, rigorous nuclear planning and consequence analysis to bring a fully integrated, deliberate planning process to the IO realm. We envision providing weapons or capabilities with documented system reliability and analytically based estimates of consequences and effectiveness, just as we have done for decades with the Nation's nuclear forces. We will support an expeditious national-level approval process for conducting IO, and we will work to ensure national leaders and warfighters have what they need at their disposal, not only during crisis but also during the critical planning, training, exercise, and deployment phases. In this vein, we have conducted a number of advanced information operations exercises, spanning the entire planning, approval, execution, and battle damage assessment phases, and have identified valuable lessons for inclusion in our future planning and development processes.

Missile Defense

The danger posed by weapons of mass destruction and their delivery systems is clearly one of our Nation's top concerns. As we discussed during my last appearance, the Missile Defense Agency (MDA) is actively developing an array of land, air, and sea-based missile defense systems to provide an additional level of protection for our homeland, our allies, and our forces in the field. Although still in the early stages of development, global missile defense will become an important third leg of the Nation's New Triad beginning next year.

While the MDA develops and acquires our missile defense systems, U.S. Strategic Command is charged with efficiently integrating and operationalizing global missile defense, enabling an initial defensive operations capability in less than 18 months from today. As General Myers noted recently before this committee, missile defense is inherently a multi-command and multi-regional task, and we are developing the global concept of operations and command and control architecture to provide the full support needed by the regional combatant commanders to defend their theaters, including the ballistic missile defense of the continental United States by U.S. Northern Command. With the unique combination of missions now assigned to our command, we are also working to integrate the emerging defensive capabilities with our full-spectrum of offensive capabilities, to support rapid and fully informed decision-making at the appropriate tactical level. This effort will be aided by the long-existing relationships we have crafted as the historic provider of ballistic missile integrated threat warning.

Command, Control, Communications, and Computers (C^4)

In the fast-paced and complex national security environment of the 21st century, U.S. decision-makers and warfighters must have seamless access to superior information to conduct decisive operations. Under the Unified Command Plan, STRATCOM now is assigned the role of tasking and coordinating C^4 in support of strategic force employment. Our objective is to provide a more capable and flexible means to integrate, synchronize, coordinate, and convey information at any level from the President to the front-line combatant. We will partner closely with U.S. Joint Forces Command and the Defense Information Systems Agency in this critical effort.

The events of September 11, 2001, illustrate the need to improve our national command and control architecture, and we are working with the Assistant Secretary

of Defense for Command, Control, and Communications (ASD/C^3) and a host of others to craft a new national-level C^4 system. This system must allow increased access to a broader array of Federal agencies, provide improved information flow, enable rapid decision-making, and support the requirements of our network-centric forces in the Information Age. While this is important for the Nation and all of the Department's missions, it is imperative for the strategic deterrent, integrated missile defense, and global strike missions, where data collection, analysis, decision-making, and execution must occur within dramatically compressed timelines. We will leverage our experience with nuclear command and control to create a robust, hardened component to the national C^4 system to preserve and strengthen the deterrent effect that assured communications, rapid decision-making and certain action provide. We appreciate your continuing support of the innovative communications initiatives such as the Transformational Communications Architecture and the important delivery platform connectivity upgrades vital to robust command and control.

Intelligence, Surveillance, and Reconnaissance (ISR)

U.S. Strategic Command is also tasked under the Unified Command Plan to plan, coordinate, and integrate ISR for the Department of Defense in support of global and strategic operations. While ISR has always provided intelligence insight and targeting data, recent world events have demonstrated the critical role comprehensive ISR operations can play in senior-level decision-making, tactical planning and even deterrence.

We will work closely with Department of Defense and Intelligence Community partners to develop and institutionalize the processes and systems necessary to maximize the capabilities of existing systems and assess intelligence collection priorities. New concepts such as intrusive ISR, incorporating space-based, air-breathing, terrestrial and maritime elements, could take us beyond passive collection benefits, especially when integrated with critical human intelligence and technical data. Our objective is to not only better provide persistent, actionable, predictive intelligence, but also to deter the threatening actions that a robust, global, persistent ISR capability could bring into full view. Systems such as the Space Based Infrared System (SBIRS), Future Imagery Architecture (FIA) and Space Based Radar (SBR) represent the high end of a spectrum that must also bring advanced air-breathing, terrestrial and maritime elements into a global architecture. Our ISR needs and regional focus in time of crisis are well known. In the future, global challenges will require an ISR capability that is broad and deep enough to simultaneously meet all national and regional needs across the continuum of peace, crisis, and conflict.

OPTIMIZING THE ORGANIZATION

As you recall from my previous statements, U.S. Strategic Command is realigning our overall headquarters organizational structure in order to effectively and efficiently address a wider range of responsibilities. We will organize along functional and operational lines, rather than administrative in an effort to focus on our primary mission areas. As we move to our new organizational alignment this month, we will expand the use of enhanced planning and analysis tools into our newly assigned mission areas. While we will draw heavily on their tools and skills, we will retain the core nuclear planning staff as a distinct element in our headquarters, organizationally aligned and consolidated to ensure focused and dedicated nuclear planning and expertise continues in the future as it has for more than half a century.

As we design concepts of operations for the new command, we are pursuing innovative new service relationships that will enable the command to efficiently tap into the unique skills and expertise resident in an array of other organizations, without requiring full-time STRATCOM ownership of their forces. We are strengthening our partnerships with the national agencies in order to collaboratively approach our new mission areas, particularly in the highly technical and focused realm of intelligence, information operations, and communications. We have forged new relationships with the National Security Agency, the National Reconnaissance Office, and the Defense Information Systems Agency. Each has incredibly talented professionals and dedicated systems, processes, and procedures that are important to our shared success but which need not be duplicated in our headquarters. We are also excited about the opportunity to leverage our strong relationships with the national laboratories as we expand and develop new capabilities applicable to our recently assigned missions.

As we discussed previously, success in any of our missions depends on our number one asset—our people. Creating a culture of excellence in a broader and deeper range of missions while sustaining the standards still reflected in our nuclear and space communities will depend on recruiting, training, and retaining the best and

the brightest, in our military, in public service, in industry, and at the national labs. We will fully support and participate in efforts to create and sustain cadres of space, nuclear, and information operations professionals in both the Department of Defense and the Department of Energy. They are absolutely essential to our future.

CHALLENGES AND OPPORTUNITIES

As we work to achieve the goals, carry out the responsibilities and deliver the capabilities needed for the global challenges of the 21st century, we will encounter many difficulties and find many more opportunities. It will not be quick or easy; few truly important efforts are. We will need to keep in mind our broader objectives, even as we wrestle with the daily technical, operational or policy details. Though the list will doubtless change over time, our specific strategic goals are:

- Fully implement the guidance of the Nuclear Posture Review, to include advocating the development of advanced offensive and integration of defensive capabilities in order to meet the President's goal of reducing our reliance on operationally deployed strategic nuclear weapons.
- Delivering on the promise of information operations to the warfighter.
- Integrating global missile defenses across regional boundaries, combining land, air, and sea-based systems with capable offensive forces to better protect the Nation and our forces in the field.
- Providing adequate bandwidth and a robust communications architecture for rapid decision-making and global combat operations at the strategic and operational level.
- Supporting technical and process enhancements in intelligence, surveillance and reconnaissance so as to provide comprehensive, persistent, predictive, and actionable strategic capabilities.
- Redefining the STRATCOM organizational structure and crafting new relationships with the Services and national agencies to effectively and efficiently support our broadened responsibilities.
- Supporting the Services' and the Department of Energy's efforts to enhance anti-terrorism and force protection measures for our critical space and nuclear facilities.
- Addressing concepts of deterrence and the associated force structure appropriate for the new international security environment of this decade and beyond.

Each of these challenges will require a team effort, inside and outside the command. As we move forward, we look forward to working with you and the many others who are privileged to share the humbling responsibilities for our Nation's defense.

CONCLUSION

It is a time of great enthusiasm, excitement, and opportunity at U.S. Strategic Command. While 2002 was a year of new concepts, 2003 and 2004 must clearly be years of execution. Driven by new tasking and new responsibilities, in a real sense we at STRATCOM have reclaimed the classic definition of strategic, as articulated by Sun Tzu, Clauswitz, Washington, or Webster. We no longer live in a world where strategic is synonymous with nuclear, and we are integrating and interlinking the command's broad portfolio of missions to better and more flexibly meet the deterrent needs of the Nation. We have taken the first important steps in the evolution of our full-spectrum "new" strategic capabilities, even as we have taken the historic first steps in drawing down our Nation's deployed nuclear arsenal.

I appreciate your continued support of the men and women of STRATCOM and the unique and essential contributions they continue to make to our Nation's security. I look forward to reporting our continuing progress to you in the future, as we take the next important steps in building the new United States Strategic Command.

Thank you, and I welcome your questions.

Chairman WARNER. Thank you, Admiral.

We will have our usual 6-minute round. Our colleagues, Senators McCain and Levin, have very carefully laid out important questions with regard to the borders. I would like to raise a similar question related to the coastlines bordered by our oceans. How serious is the threat there? What role do each of you play in protecting any possible incursions across our coastline, the most probable

being a terrorist missile attack of some type from some type of vessel? Who budgets for technologies and programs that might address this threat?

Yesterday, General Eberhart, you and I had an opportunity to visit privately and you said that your area of responsibility as designated extends 500 miles to sea. I was quite reassured by the command and control you have over vessels coming in and surveillance. Then, Secretary McHale, I expect you are more or less coordinating all the efforts on this. Admiral, I am not sure what portion you have.

But let us start with General Eberhart.

General EBERHART. Sir, as we look at maritime threats we focus initially on what we would consider threats that the Department of Defense would have the lead on. The example that you used, a cruise missile, whether it was from a foreign nation's navy or a terrorist cruise missile, we would certainly have the lead for that type of activity.

Ideally, as we talked earlier and you alluded to during your statement, we want to stop that missile, that crew, before it reaches the 500-mile limit of our area of responsibility.

Chairman WARNER. Board the vessel if necessary?

General EBERHART. Board the vessel, and if that does not work then do whatever is appropriate in terms of international law and law of the sea to make sure that that does not pose a threat to this Nation. Ideally, we like to work with the flag carrier, whatever nation whose flag that ship is flying, and we have found that they are very cooperative. If they believe that they have a flagged vessel that in fact is carrying contraband or doing something that poses a threat to us, we would like for one of our allies to take care of this problem before it poses a threat to us.

You could argue that we are the supported command for this exercise, kind of a moot point. But in fact, if European Command (EUCOM) or Pacific Command can take down that threat, that is great. Let us defend as far forward as possible.

Then if it is necessary and we do not detect it, we are not aware of it until it is inside our area of responsibility. Every day we look at where all of the ships are in the Atlantic and in the Pacific. We work with both the Navy and the Coast Guard to ensure we know what ships are closest to this threat, what ships would have the capability to deal with the threat, whatever the threat might be, and then we respond.

Now, what we do not have right now and what we need in the future is wide area surveillance.

Chairman WARNER. What is the last word?

General EBERHART. Wide area surveillance, sir. We get some surveillance, obviously, from our overhead, but that is cyclical, if you will. It is not 100 percent of the time. If we know the general area to look in we can send out aircraft for surveillance. Sometimes we can do it with other ships' radar, et cetera. But over time we are going to have to harness the technology so that we have a picture on the sea much like we have a picture in the air today, so that we can sort the good guys from the bad.

Chairman WARNER. How soon do you anticipate that that will be a part of your——

General EBERHART. Sir, right now we are doing what we call an advanced concept technology demonstration, which is supported by the Department of Defense. It is supported by Congress and is funded. This is essentially a high altitude unmanned aerial vehicle (UAV) that will be up 60,000 to 70,000 feet. We think one day it will have the capability to be up for a year or more and provide us this wide area surveillance.

Chairman WARNER. What about the UAVs we currently have in inventory and coming on line with further production?

General EBERHART. We can use those, too, sir. But obviously they are somewhat limited in terms of duration time and in terms of legs and in terms of their capacity to carry sensors. But all of those things we have to harness.

Chairman WARNER. Please include in the record such additional information you may have.

[The information referred to follows:]

Lessons learned from employment of UAV systems such as the Predator and Global Hawk have provided valuable insight into the potential for unmanned systems to support homeland defense. Prospective UAV applications include emergency response communications capability, long-endurance surveillance and detection for border and maritime security, and sensors to support law enforcement and civil response agencies. In addition, ground and maritime unmanned vehicles are promising technologies that could provide homeland defense capabilities.

Chairman WARNER. Now I want to get in a question for Secretary McHale related to port security. It is one thing to interdict the vessel beyond our shores, but there are instances where that vessel will be portside, and also the ports facilities could well be a target of those that have not come by sea but come by land, that is the terrorists.

Secretary MCHALE. Yes, sir. Mr. Chairman, one of the things that I have tried to do during the brief period of time that I have been in office has been a conscious focus on pushing outward the boundaries of our defense. A great deal of emphasis has been appropriately applied to port security and I certainly do not denigrate that. But I come out of a Marine Corps background and I believe in locating and defeating the enemy as far from my position as possible.

So I want to reach out well into the blue water to defeat the enemy threat, particularly if it is a weapon of mass destruction. I also want to locate that threat if it comes into port, but that is frankly when the enemy has made it into the wire and that is a late stage in the process.

It was noted earlier that the NORTHCOM area of responsibility includes approximately 500 nautical miles of blue water. While that is true, it is somewhat of a generalization. It is basically 500 nautical miles on the west coast, but if you look at the Unified Command Plan and see how the lines are actually drawn it is probably three times that distance, approximately 1,500 nautical miles, along the east coast because of the way the line is drawn in a straight line and our coast is curved.

We have a substantial amount of blue water on either side of the Nation in which to detect, interdict, and destroy an enemy attack.

Chairman WARNER. That includes the States of Alaska and Hawaii, I presume?

Secretary MCHALE. Yes, sir, it does. We have the responsibility for all of the homeland defense activities, whether they are in General Eberhart's AOR or, as is the case for instance of Hawaii, within the PACOM AOR. So our charter is a little bit broader, significantly broader in the sense of protecting American citizens and property and freedoms beyond the AOR that have been assigned to General Eberhart.

We have a very large amount of blue water. We need to take advantage of that entire space for an integrated maritime defense of our coastline. That begins with better intelligence, intelligence that in terms of area of interest is worldwide for General Eberhart. We need to bring to that intelligence a homeland defense perspective that has not always been the case in the past.

Chairman WARNER. How long is it going to take you to achieve that? You are saying that in the future we are going to do this. I want to know what that time line is, and are there sufficient assets in the pipeline, perhaps in this most recent supplemental, perhaps in the President's budget, to implement what you foresee now as being the needed requirements for equipment, training, personnel to carry out that mission.

Secretary MCHALE. Mr. Chairman, we have gotten a lot better in the last few months in terms of bringing a homeland defense perspective to raw intelligence. That intelligence has historically been oriented toward the forward edge of the overseas battlefield and relatively few analysts have looked at that information in order to make a connection to a domestic threat.

We have gotten better. My hope and expectation is that the President's proposal for the Terrorist Threat Integration Center (TTIC) that he announced in his State of the Union address will allow us to fuse overseas intelligence collection capabilities for analysis and review by those who in the United States look at that information, to determine its relevance to a threat that might materialize here, so that we connect the dots before an event occurs.

Mr. Chairman, I also think that we can in the future take advantage of our GPS tracking system in order to have real-time location information with regard to a naval platform that may ultimately pose a threat to the United States, and that that tracking can go on for an extended period of time so long as we believe that that ship is still on the seas and that it might at some point be a threat to our Nation.

Chairman WARNER. My time is expiring. Admiral Ellis, do you have a contribution to this question?

Admiral ELLIS. Yes, sir. Very briefly, Mr. Chairman, our job is to provide to General Eberhart and all the regional combatant commanders everything we have and to act as the spokesman on behalf of the combatant commanders for the very real capabilities that we need to develop. That includes robust communications architecture, the persistent intelligence, surveillance, and reconnaissance that Ed was speaking to, the fused multi-system ballistic missile defense capability, and a viable information operations capability.

So we are being asked to centralize that, to assess what we have, and to look, more importantly, at what the architecture and requirements need to be for the future across the full spectrum of the threats that confront the Nation.

Chairman WARNER. I thank the witnesses.

Senator Levin.

Senator LEVIN. Thank you, Mr. Chairman.

I would like to pick up with Secretary McHale and with General Eberhart, particularly on the intelligence questions which you just discussed. Secretary McHale, what is your connection and what is the new command's connection to the Counterterrorist Center (CTC) at the CIA? How are you linked to that center, which analyzes the information relative to foreign terrorists which threaten our interests here in the United States?

Secretary MCHALE. Senator, I think Ed will probably want to comment on this as well. But there are a number of ways in which we are linked. I have daily communication with the CIA in order to have access to the information generated by the CIA related to domestic threats. I begin each day with a DIA brief and then follow that by attending the briefing that is received by the Secretary of Defense on these very issues.

Senator LEVIN. Let me interrupt you there. Are you represented at the CTC the way the FBI is and the way the Department of Homeland Security is?

Secretary MCHALE. Our office is not, but I do believe that the DIA is represented, and we have daily contact with the DIA. In addition, we have recently created, pursuant to the statutory authority provided by Congress, the Under Secretary's position for Intelligence, and I know he intends to work very closely with both that agency and the Terrorist Threat Integration Center.

Senator LEVIN. So that your connection to that place which produces the analyses which you need, presumably, and General Eberhart needs, is through the DIA?

Secretary MCHALE. Yes, sir. In addition, General Eberhart has on his staff full-time a representative of the CIA. That person is located with General Eberhart out in Colorado Springs. That person serves along with a DIA representative as a conduit back to the CIA in terms of their counterterrorism analysis and information.

Senator LEVIN. General, that person, however, does not sit at the CTC and is not part of the analysis process; is that correct?

General EBERHART. That is correct, sir. That person is not.

Senator LEVIN. So it is a one-way conduit from you to the CTC, but not from the CTC to you; is that fair or is that too simplistic?

General EBERHART. Sir, I really think that does not appropriately capture it, because there are about five different conduits from the CTC to me. There are regular reports that they send out that we get copies of, and we get those directly. In some cases we get them from other organizations, but in some cases we get them directly.

Senator LEVIN. You get all the analyses of the CTC that affect homeland security?

General EBERHART. Sir, I am convinced that we do. Again, we have some checks and balances here. We have the head of the DIA, and if he sees a report he picks up the phone and calls our J–2, our intelligence, and says: "Have you seen this report?" I am happy to report to this day we have.

We have this DIA liaison officer right there in the CTC who is checking and doublechecking to make sure we get the information we need. Then we have this flag level CIA representative, so that

if we have a question about a report we can go back verbally and get an answer very quickly, as opposed to going back through a bureaucracy, if you will.

Senator LEVIN. The lack of coordination of intelligence information between the various agencies was a huge failure prior to September 11. There are a number of efforts being made by this committee and the Governmental Affairs Committee, by a lot of committees, to make sure that that does not happen again. You state in your testimony, General Eberhart, that one of the greatest challenges lies in sifting through the volumes of intelligence and operational data, and that another shared challenge is to overcome cultural and procedural differences among the DOD and other departments for information that is collected, categorized, classified, analyzed, and disseminated.

I happen to agree, by the way, that those challenges exist. But would you expand on that? If those challenges exist, it suggests that they have not yet been overcome. Give us a little more detail about those challenges.

General EBERHART. Sir, my view is that the challenges exist. Sadly, they will probably always exist to some degree. However, we have come a long way since September 11 in being able to overcome those challenges and to make them manageable, if you will. There is, to a large degree, an approach now that we have termed "need to share" as opposed to "need to know." I think we are seeing that type of attitude out there, whether it is a law enforcement organization, whether it is the intelligence community, or if it is information from open sources that we think we need to put together to integrate, to ideally fuse, as the Secretary has said, so we can connect the dots and have something that is actionable.

As we do these scenarios—as we do this real-time sharing of information day in and day out—those cultural barriers come down. I am seeing better cooperation than I have ever seen before, much like during the 1990s when we brought down a lot of those cultural barriers in the intelligence community to share information, and Jim Ellis and others were part of that effort.

We have done things like what we call a tear line, where we might have very sensitive information that talks about the source and a lot of other things, but the source and those kinds of things are not important out at the tactical level. So we take that, we sanitize it to the point where the tactical user gets the information he or she needs and it is not as highly classified as it was before, where we said we cannot share this information.

So we have taken, I believe, some significant steps. That does not mean we have this right yet. We have to continue to work it.

Senator LEVIN. Thank you.

One of the issues that I have been very concerned about is the ability to detect explosives from a distance. Ever since the bombing of the U.S.S. *Cole,* that has been very high up on our radar as a technological challenge. Are we making any progress, Secretary McHale, on the ability to develop standoff detection capability for explosives, as well as for chemical, biological, and nuclear weapons material?

Secretary MCHALE. Senator, I think we are. I was encouraged by the briefings that I received when I came on board to find out that

our remote sensing capabilities are more advanced than I would have anticipated. That for me was very encouraging information.

A couple weeks ago I was with Senator Reed at a homeland defense symposium in Newport, Rhode Island. Congressman Kennedy attended that as well, and I had an opportunity to speak to a number of significant contractors in the private sector who are bringing advanced and robust technology to this area.

With regard to explosives, the challenge is significant. With regard to weapons of mass destruction, it is even greater. Just to give you a quick example, a few years ago Tom Clancy wrote a novel that focused on the transport of an improvised nuclear device across the Atlantic Ocean into one of our unprotected ports. That novel's plot went on to describe the consequences following the detonation of that improvised nuclear device.

It is my belief that if an enemy is to acquire weapons of mass destruction, that will likely take place overseas, and it is likely that the material for that weapon would be brought into our country by a maritime platform. There are sensors now in use. They are in the early stages of development, but there are sensors that I think hold out great promise for creating what I have called WMD choke points, engagement areas, where we would have the opportunity to screen passing vessels, to determine whether or not a weapon of mass destruction was aboard the ship. The science to support that effort is not too far down the road in terms of its understanding and operational employment.

So one of the most encouraging areas of information that I have had brought to my attention since taking this office is the very real prospect that in the not too distant future we will be able to operationally employ in an effective way remote sensing capabilities for explosives and particularly for high-end weapons of mass destruction.

Senator LEVIN. My time is up. Thank you.

Senator INHOFE [presiding]. Thank you, Senator Levin.

Senator Allard.

Senator ALLARD. General Eberhart, we have talked a lot in general terms about local, State, and Federal cooperation. I am curious to know what kind of mechanisms perhaps you are putting in place now to encourage that cooperation to occur. I think in my own mind of things like war games, for example. I mean, there might be an opportunity there to create some kind of scenario where you could have local—or what are you doing, for example, to maybe have an input on training programs for law enforcement? I wondered if you would share with us some of your thoughts.

General EBERHART. Senator Allard, I think the best way to answer this is to say there are both formal programs and informal programs. First to the formal programs. I think the best example of that is the civil support teams that Congress has authorized. These soon will be in all 54 States and territories. My view is that these teams are a wonderful bridge from those first responders to the State militia and then to Federal forces if and when those Federal forces are required.

Because those teams are federally-funded and equipped, we have been able to ensure standardization among those teams. They have the same equipage, they have the same training, they use the same

terminology. They are certified by the United States Army to conduct this mission, and then the Secretary of Defense is the final certification official.

So therefore we have this standardization and soon we will have this standardization in all of our States and territories that I think will help us standardize all the way from the first responders of the fire departments and the police departments again to State agencies to Federal agencies. That is a formal program, if you will, and I think those types of programs pay big dividends.

The informal programs are what you alluded to. Those are voluntary in nature, but we certainly do not have trouble getting people to volunteer. These are where we do war games scenarios. In most cases they are in Colorado Springs when we do these, or when we participate in other places, there will be upward of 50 different government agencies, to include State and local responders and State agencies, sitting at the table working our way through a scenario, whether that is a weapon of mass destruction, whether that is some sort of epidemic, or whatever the case may be, crisis management or consequence management.

I think these interactions are very important in terms of standardization, in terms of interoperability, in terms of building friendship and confidence that will really be the key to our success.

Then finally, back to the formal programs, we have formal exercises. This summer, TOPOFF 2 has been chartered by Congress for us to conduct. TOPOFF 2 will include three or four different States in this exercise program where we will reach down all the way to the first responders and we will exercise the entire system from first responders to Federal forces when and where needed.

So I think we are making good progress there. It takes time. Sometimes it is slower than we would like. We cannot mandate this, but I think everybody realizes this is the right way to go.

Senator ALLARD. Thank you, General.

Admiral Ellis, I am curious to know what you are doing in your newly created command to make sure that space remains a core mission.

Admiral ELLIS. Senator, as you and I have discussed many times, space is the fundamental underpinning of everything we do in today's military, not just with the new missions that have been assigned to us at the United States Strategic Command. Clearly that takes on a number of levels. First off, we need to assess candidly the requirements and the programs that are being put in place by each of the Services. From a joint warfighter perspective that is our role, to assess the level of funding, the priorities, and the like from each of the Services—Army, Navy, and Air Force—that contribute to that through robust componency relationships with me.

I have also taken it upon myself to make sure that I visit all of the facilities that are so important to our space effort. That is, the launch complexes on both coasts, obviously, and the major industry contributors to the assured access and the tremendous on-orbit capabilities that we have enjoyed and absolutely must preserve and enhance in the years ahead.

Finally, we are very much a part of the gaming and the simulation capabilities that are an important part of reemphasizing for each of our warfighters the importance of the role that space plays

in their ability to execute their missions. We just completed, as you are undoubtedly aware, Schriever II, which was the second of our national war games, if you will, in space. That involved representatives from all agencies, all Services, as well as the private sector, so that we take the lessons that we learn from a vision of what challenges will confront us in the future as a Nation to better optimize the progress that we want to continue towards enhancing our use of space.

Senator ALLARD. Secretary McHale, the National Guard continues to be a critical part of our military mission. At the same time, it is essential for homeland defense. Has the Department of Defense determined how to best utilize the Guard in your view?

Secretary MCHALE. I think we have a direction, but not an end state that has been defined. While maintaining the Guard as a balanced force that will continue to serve as an important part of our Nation's Strategic Reserve, with overseas warfighting requirements and training, we anticipate that the National Guard will play a more active and focused role, a more robust role, in homeland defense.

We have eight National Guard divisions that are oriented now primarily toward the overseas war fight, at least in terms of their Title 10 mission requirement. I anticipate, as General Eberhart described a bit earlier, that the Guard will play an even more significant role in terms of future CSTs. The National Defense Authorization Act has now required that we establish 55 such teams. We currently have 32 that are certified. So clearly the National Guard is going to play a bigger role in that area.

The National Guard plays an important role in terms of individuals and units that have been assigned to JTF-Civil Support for consequence management, including consequence management following a successful enemy attack involving a weapon of mass destruction. So in the future what I anticipate is that, while the Guard will remain committed to the training and equipment for an overseas war fight, substantial portions of the National Guard will, in addition to overseas warfighting missions, be assigned new homeland defense requirements.

Senator ALLARD. A lot of these individuals are part-time. They have jobs other than the Guard. If we put on too much responsibility, then it no longer becomes a part-time position. Are we able to maintain our personnel in the National Guard? Are they pretty happy with the current situation?

Secretary MCHALE. I think they are.

Senator ALLARD. Even with the increased demands?

Secretary MCHALE. Even with the increased demand. The Guard is now playing an important role with regard to our overseas war fight, particularly in combat support and combat service support capabilities that the Guard brings to our overall military capability. To the best of my knowledge, there are no ground combat units, no maneuver elements from the Guard that are currently engaged in Iraq.

We have a significant number of Guard personnel who can, either in Federal status, Title 10 status, or more likely in State status, play a significant role in terms of the protection of domestic critical infrastructure. We have Guard personnel deployed right

now at various locations around the country protecting in State status critical facilities that the governor of the individual State believes needs to be protected under circumstances where civilian law enforcement may not be prepared to take on that challenge.

So in the years ahead—and I would emphasize this—I think there will be a much more important role for the Guard, but not just in Title 10 Federal status. I think, as was the case with Operation Liberty Shield when Secretary Ridge announced that we were going to a heightened state of alert during the period of conflict in Iraq, at his suggestion a number of governors in State status took their Guard forces, put them on alert, brought them to active duty and, again in State status, deployed them to protect critical sites.

That mission of critical infrastructure protection I think is one that with increasing likelihood will be assigned to the Guard.

Senator ALLARD. Mr. Chairman, my time has expired.

Senator INHOFE. Thank you, Senator Allard.

Senator Pryor.

Senator PRYOR. Thank you, Mr. Chairman.

General Eberhart, I have a few questions for you. During the Space Shuttle Columbia tragedy, how did NORTHCOM, NORAD, and STRATCOM respond and how did they work together?

General EBERHART. Sir, as soon as we knew that in fact it looked as if we had lost the Space Shuttle Columbia, there was a problem with Space Shuttle Columbia, we initiated with the National Military Command Center what we call a domestic event conference. That domestic event conference is something that grew out of the tragedy of September 11, where we get all the players, if you will, on a teleconference so that we know what the problem is and what type of solution sets might be available and to try to sort out those very important questions such as who will be in the lead, who will have the lead for this effort. It has proved to be a wonderful vehicle that has served us well as we have worked our way through many different problem sets.

On that day, representatives from STRATCOM, NORAD, and NORTHCOM were all up. I was personally up, and through that conference and through then subsequent conversations offline it was established that initially the National Aeronautics and Space Administration (NASA) was the lead Federal agency.

Then we switched the lead Federal agency from NASA to the Federal Emergency Management Agency (FEMA) because it was obvious that it was now a consequence management problem, but that NASA would still be supported, because we had to in fact secure this wreckage and make sure it did not constitute a threat to the citizens of this great Nation, and also so we could try to put together the accident investigation.

So, in fact, what you had was Strategic Command in the lead for the accident investigation, supporting the accident investigation, and Northern Command in the lead in supporting FEMA in terms of recovering the debris and safeguarding our citizens. That is the way it has progressed to this day, obviously with policy guidance from the Office of the Secretary of Defense, specifically the Office of the Assistant Secretary of Defense for Homeland Defense. We had teleconferences every day for about a week there as we sorted our way through these problems.

So I think that the mechanism of the domestic event conference, the close friendship and working relationship between commands and the Office of the Secretary of Defense, served us well in the aftermath of that tragedy.

Senator PRYOR. It sounds like you work pretty well together. Are there lessons learned? In other words, can we do it better next time? Did we learn some lessons this time?

General EBERHART. Sir, I am a believer that if you win 70 to nothing tomorrow, you can still do something better the next time you get on the field, because whoever you are playing is going to be better. So there is no doubt in my mind that there are things that we can do better, and we in fact have an after-action report that we are working our way through now. It is the initial after-action report. It is very detailed.

But I think in terms of how we provide capabilities to these agencies there is a long list of things that we in fact can do better and we are working to do those better in the future.

Senator PRYOR. Let me ask a follow-up to Senator Allard's questions a minute ago about the National Guard, and maybe you answered this. But what role do you see the National Guard having in homeland security and, more specifically, in NORTHCOM?

General EBERHART. Sir, I would like to say that there are two great teachers, if you will, in terms of homeland defense and homeland security. One goes back to the 1630s and that is our militia, that is our National Guard. The second is our Coast Guard, dating back to 1790. They have been doing this since their inception and we have a lot to learn from both of these great institutions.

So when I think of homeland defense and homeland security, first and foremost I default to those organizations because I know they know how to do it. Of course, the dilemma is, as the Secretary has said, do you take the National Guard and relegate it—probably not the right verb—to only homeland defense and homeland security missions or do you keep a broader view, but look for ways to focus them better. I do not mean better in terms of they are not doing it well enough, but so that we can in fact leverage them better for homeland security and homeland defense. I think the latter is what we should do, as the Assistant Secretary has mentioned.

I believe that we have a construct right now in that our air defense missions, as you well know, are predominantly, almost exclusively conducted by our National Guard. I think that construct can serve us well for sure on the land, too, as we look at our quick reaction forces and our rapid reaction forces in the future. Obviously, if we do that we have to have them so that they are able to react quickly and promptly. 96 hours or a week does not get it. They have to be ready to go in 12 or 24 hours.

I think we can make those kinds of things work, but I am open to any and all ideas here. I am convinced we can do it better.

Senator PRYOR. I would love to visit with you some time about what resources you think the National Guard needs to augment and to assist in the mission and be able to achieve the mission that it is intended to do.

Secretary McHale, we talked a little bit here about NORTHCOM and working very closely with Canada. What about Mexico? Is

there a reason why Mexico is not in this? Does that mean that we do not perceive any threats coming from the south?

Secretary MCHALE. Senator, if I may, could I comment briefly on the previous question and move to Mexico very expeditiously?

Senator PRYOR. Sure.

Secretary MCHALE. Among the lessons learned with regard to the Space Shuttle Columbia tragedy was initially some uncertainty as to the lead Federal agency. Immediately following the tragedy there was an expectation that the Department of Defense might be the lead Federal agency. Quickly there was a recognition that that is not the way to approach these issues. Under the Federal response plan, FEMA assumed very effectively its lead. We provided support to FEMA. But there was uncertainty in the first few hours.

The military response during Space Shuttle Columbia reflected the fact that Title 10 involvement is likely to be modest in terms of domestic engagement. Most of the military support for the recovery effort was led by the National Guard in State status. About 1,000 guardsmen were deployed from the various States that were affected and they did a superb job, but they were under State command and control, at State expense. We in fact used about a half dozen CSTs in Title 32 status as part of the cleanup.

Now, forgive me, I will move very quickly to your question.

Senator PRYOR. That is okay.

Secretary MCHALE. We are pursuing a close cooperative relationship with the Mexican military where that effort is governed by profound respect for Mexican sensitivities with regard to their national sovereignty. NORAD has provided a bilateral relationship with Canada that goes back many decades. It is a mature military relationship and the comfort level of that relationship reflects the friendship and professional military cooperation that has existed throughout NORAD's existence.

We hope to achieve an even closer relationship than the one we have had with Mexico in the past, but the pace of pursuing that relationship must be dependent upon the sensitivities on both sides of the relationship. There are appropriate sensitivities in Mexico with regard to the protection of Mexican sovereignty. We are pursuing cooperative military efforts with Mexico, but only at a pace that meets the requirements Mexico brings to the table.

So it is our hope that, with regard to the NORTHCOM AOR, in the years ahead we will have a close cooperation between neighbors both on our northern and southern borders, and we are in fact pursuing that, but with a sensitivity toward the historic concerns that are manifested by the Mexican government and the Mexican people.

Senator PRYOR. Thank you, Mr. Chairman.

Senator ALLARD [presiding]. Senator Collins.

Senator COLLINS. Thank you, Mr. Chairman.

Secretary McHale, let me begin by commending you for the work that you have already undertaken to ensure a strong relationship between your office and the new Department of Homeland Security. I was very pleased to hear the update that you provided in your opening statement. I want to follow up on concerns that have been raised by my colleagues about the National Guard.

As of April 2, I believe that there are nearly 220,000 members of the National Guard and Reserves now on active duty. In Maine many of the members of the National Guard's regular jobs are in our police and fire departments. They tend to be the backbone of the first responders in many Maine communities. Similarly, we had a situation in Maine where a Coast Guard cutter which was working hard on port security in southern Maine has now been deployed to the Gulf.

Is there a concern that as we rely more on the Guard in a conflict such as the one in Iraq and as we deploy and redeploy Coast Guard assets, there is a danger that we could end up actually weakening our homeland security? When you look at the members of the Guard who are first responders in communities all across this Nation, and the first responders are the backbone of homeland security in many ways, and if you look at the Coast Guard, which has been so involved in port security, if we are starting to redeploy those assets are we risking our homeland security in times of war?

Secretary MCHALE. Senator, we obviously have to approach those kinds of issues very carefully. The first thing we need to do is get the facts. When I had my confirmation hearing, Senator Clinton asked me about this issue and I indicated to her that we would provide information related to the number of first responders who were also reservists in various capacities.

I discovered when I got back to the Pentagon—we have since communicated this to Senator Clinton—that we do not know that information, because when I gave the answer it was my belief that we could locate those individuals within the Reserve and the Guard who are also first responders. I discovered that, since the majority of our first responders in the United States are in fact volunteers, although we have data at the Department of Defense with regard to employment of our reservists, we do not have data with regard to their volunteer activities that might relate to first responder requirements.

In fact, I think there are something like a million, perhaps slightly more than that firefighters in the United States. Three-quarters of them are volunteers.

So as a direct result of the question before this committee, the Department of Defense has now undertaken a comprehensive survey in order to determine not only the occupations of those who serve in the Reserves, but also their volunteer activities insofar as they relate to first responder status.

In addition, the Department of Defense does have a program for delaying the activation of individuals if in fact an exemption is appropriate based on the public safety requirements of an individual community. That request can be made. Some requests have been made in the past, and we have attempted to the very best of our ability within a reasonably brief time frame to accommodate mobilization issues so that communities are not left without their first responder support.

Lastly, with regard to the Coast Guard, that involves coordination between an entity that in peacetime is under the Department of Homeland Security and the Department of Defense that may require Coast Guard capabilities in an overseas warfighting role. I can assure you that very careful attention is paid to a balancing

of overseas requirements and domestic needs whenever those kinds of capabilities are deployed to an overseas war fight.

That is not a decision that is lightly made, and included in the analysis is a careful focus on what the domestic implications are arising out of an overseas deployment of a Coast Guard unit. We in the Department of Defense do not seek that support from the Coast Guard unless it can be determined that the risk is reasonable and prudent in terms of the deployment, and frequently what it means is an identification of other Coast Guard units that are capable of taking on that mission should the first unit be deployed.

Senator COLLINS. Thank you for that response and I look forward to seeing the results of the surveys that you are undertaking. I am also pleased to know about the exemption process, because in some small towns in Maine when the Guard member is called up and he or she is the only support for the police chief it has been an issue.

I want to turn to the issue of port security and learn more about the Department's role in that regard, and I would like all three of you to comment. I held a hearing recently in the Governmental Affairs Committee to evaluate the security of our ports, looking particularly at containers. We have literally millions of individual containers coming into the United States each and every year. We used to look at container ships as marvels of international trade. Now we look at them and we worry that they may harbor terrorists or the makings of a dirty bomb or biological or chemical weapon.

Indeed, the testimony at the hearing was chilling in that regard. The experts who testified before us felt that our ports were our single greatest vulnerability. They also told us that for years containers have been used to smuggle in illegal aliens, drugs, other contraband. So there already is an infrastructure, if you will, that could be used by a terrorist group.

There is also an al Qaeda manual that advises the recruitment of smuggling rings as possible members of terrorist units. So the combination of an infrastructure that has been used illegally for many years and the relative ease with which it could be penetrated by a terrorist group was cause for great concern among the committee members.

The Coast Guard and the U.S. Customs and Border Protection are obviously the lead on this. They are doing a lot of screening and working with ports in other nations to station customs officials. They have developed new technology that is going to be of use. But it seems to me that the Department of Defense has an intelligence role to play in perhaps identifying cargo ships at particular risk, because the whole idea is we have to stop them before they get to our shores.

So starting with Admiral Ellis, I would like each of you to comment on the Department's role in port security.

Admiral ELLIS. Thank you, Senator Collins. That is a great question. Clearly it highlights the long-acknowledged relationship between criminal smuggling elements and terrorists, both in terms of the processes you describe, as well as the funding streams that support terrorism in many ways.

My role in the United States Strategic Command is to oversee, as I mentioned, one of the elements of our DOD capabilities, and that is C^4ISR, a very awkward acronym, but it really does talk to

some of the issues you are addressing, specifically in the intelligence, surveillance, and reconnaissance piece.

As we look to requirements to better optimize the use of current systems and to design capabilities for the future, clearly the technology transfer opportunities that you address into other agencies that are charged with the surveillance that is essential in preventing that flow of terrorist capabilities to our Nation has to be a strong piece of that, and it will be.

We have had some success in the past. As you know well, the United States Customs and Border Protection, for example, flies P–3 aircraft with Navy E–2 surveillance radars on them. So there is some history of finding systems that have great military applications and transferring them to areas that have application more broadly in ensuring the Nation's security. The same thing is also true of the technology that the Secretary was alluding to earlier in the ability to detect chemical, biological, and nuclear weapons, weapons of mass destruction, if you will.

So from our standpoint as we articulate the requirements for the military, I think it is also important that we understand the applicability that these capabilities may have in other areas, and we are committed to that.

Senator COLLINS. Thank you.

General?

General EBERHART. First of all, I would like to applaud some of the procedures that have been initiated by Customs and Border Protection and the Coast Guard to work this problem. The 96-hour notice, the manifest, working with customs agents there at the ports of departure, I think are starting to really pay dividends. They have put teeth in this and it is not unusual for the captain of the port, if someone tries to approach the port and has not given this 96-hour notice, to make them mark time out there before they will let them into the port to make sure that we follow these procedures.

Second, this relationship between the United States Navy in particular and the Coast Guard goes way back, and it is a relationship that has matured over time, that there is no doubt when you talk to our leadership off of all of our coasts how they work together. In fact, we put what we call law enforcement detachments, which are Coast Guard men and women, on Navy ships to work this problem. So at the tactical level they are working this day in and day out.

But the final resolution in my view will be through technology. We cannot inspect every container. If we can require people to file these manifests 96 hours ahead of time, we can have limited surveillance. But until we have wide area surveillance and until we have the remote sensing capability to know that there is something on that ship that could pose a hazard to our citizens, we are never really going to be able to solve this problem like we would like to solve it.

So we have to harness technology for both surveillance and sensing and then, as we come back to the front end of the problem, share intelligence. So if we think there is something suspicious happening, that we share that with all the people who need to know this so that we can protect this Nation.

Senator COLLINS. Mr. Chairman, I know my time has expired. Could Secretary McHale just respond very quickly?

Chairman WARNER. Yes, of course.

Senator COLLINS. Thank you.

Secretary MCHALE. Senator, in my judgment, we need to develop a maritime defensive strategy in depth for the 21st century. The purpose of that strategy should be the decisive defeat of terrorists in possession of weapons of mass destruction. The Navy needs to maintain its blue water capability to protect our country against hostile nation states, but we need to take the current capabilities of the Navy, supplement them with evolving technological capabilities, and find an equally effective defense against terrorism and weapons of mass destruction.

We need to bring a homeland defense perspective to worldwide intelligence so that we understand how that intelligence affects a potential domestic threat. We need to track hostile vessels real-time so that we know where they are all the time in terms of the implications for domestic security. We need to advance remote sensing capabilities for weapons of mass destruction, so that when a hostile vessel approaches our shores we know it and we can screen it to guarantee that a weapon of mass destruction will not be brought into an American port.

Then lastly, we in the Department of Defense need to strongly support the efforts of the lead Federal agencies in this regard, the Coast Guard and law enforcement agencies, including Customs and Border Protection and the FBI. We will support them with emerging technologies that are being developed within the Department of Defense and we will support them, when appropriate, with unique capabilities, for instance when the Navy may have a capability that is not possessed by the Coast Guard but which would be of advantage to the Coast Guard in carrying out its mission of port security.

We receive those kinds of requests from the Coast Guard and we routinely cooperate with the Coast Guard in providing that support.

Senator COLLINS. Thank you.

Chairman WARNER. Thank you very much, Senator.

Senator Dole.

Senator DOLE. General Eberhart, you have stated that over 29,000 sorties have been flown since September 11, and in addition to that NORAD has supported a continuous layered air defense of the National Capital Region. The professionalism of all of the men and women who have accomplished these missions without a single mishap is truly exceptional.

Now, in carrying out your responsibilities for contingency planning, how are you addressing the various readiness issues that surface for some of the high density, low demand forces that have been through repeated deployments? Do you foresee any future morale issues, morale problems with regard to these forces and their families?

General EBERHART. Senator, as you well know, we are concerned about operations tempo and personnel tempo. We are concerned about the wear and tear on our equipment, but more so on our people, whether they are guardsmen or reservists or active duty.

Right now, as we work our way around the low density, high demand capabilities for NORAD and NORTHCOM, we are careful to ask for capabilities and not platforms. For example, if we need air surveillance, we do not specifically ask for an Airborne Warning and Control System (AWACS) airplane. What we will ask for is the capability. In some cases, as Admiral Ellis has said, we will get that capability from Customs or the Coast Guard or from the United States Navy, as opposed to the E–3s that are stationed at Tinker Air Force Base in Oklahoma.

But that really does not work the problem in the longer term. The Secretary of Defense has alluded that low density, high demand is a nomenclature we put on things that we have not bought enough of. Over time, we need to buy more of those kinds of things so that they are no longer low density, high demand and we have the force structure we need in those areas to work our problem.

Second, as the Secretary of Defense has said, in the longer term we have to look at how we use Guard and Reserve and Active-Duty Forces. Do we have the right mix of those forces? If we are continually having to use the Guard and Reserve, maybe we have the wrong force structure in terms of our Guard and Reserve Force structure and our Active-Duty Force structure.

So that is how we work the problem in the longer term. In the near-term, we look for work-arounds in terms of these low density, high demand forces.

Senator DOLE. Secretary McHale, you supervise all homeland defense activities, including combatant command capabilities. How do you envision that the Special Operations Command (SOCOM) and its component units might be used in a homeland defense role?

Secretary MCHALE. There are a number of ways in which they could be utilized. The most likely employment of Special Operations Forces would be upon assignment to a combatant commander who requested those forces in order to execute a homeland defense mission where that combatant commander thought that the use of those forces would enable him to achieve the mission.

That is another way of saying that homeland defense missions would be treated the same as all other missions with regard to the transfer of forces to the combatant commander for the execution of the mission. Now, in a purely domestic setting the distinction between the responsibilities of the Office of the Assistant Secretary of Defense for Special Operations and Low Intensity Conflict (SOLIC) in the Department of Defense and the new Office of the Assistant Secretary of Defense for Homeland Defense would be a boundary drawn generally at the U.S. border. Counterterrorism activities, including Special Operations Forces, external to the United States would remain a SOCOM–SOLIC function. The use of Special Operations Forces within the United States would be the responsibility of the combatant commander in whose AOR they would be operating. That would be General Eberhart and the command would be Northern Command.

Once counterterrorism activity begins to take place internal to the United States, that counterterrorism activity would be conducted in support of a lead Federal law enforcement agency. At the low end of that DOD support, we would typically be talking about the use of DOD equipment by civilian law enforcement agencies.

We would temporarily loan to a law enforcement agency equipment that we possessed that they might want to use.

As you move up the scale of response, it is conceivable that at the high end of WMD capabilities and our ability to defeat an enemy threat that under appropriate circumstances, particularly in the chem-bio arena, that Special Operations Forces could, based on the mission, be employed by General Eberhart as the supported commander.

At the very high end, we get into a classified area of response capability that we would have to discuss in a closed session, where Special Operations Forces have had traditional, but again, highly classified missions.

Senator DOLE. The Special Operations community has been able to transition technology into capability at a much faster rate than other DOD agencies, primarily due to their unique acquisitions process. General Eberhart, you mentioned the high altitude airship advance concept technology demonstration (ACTD). Beyond the ACTD, what else is being done to accelerate the transition of a promising technology into a homeland defense capability?

General EBERHART. There are several other projects we have. We have one in terms of information-sharing and command and control. It is another advanced concept technology demonstration for homeland defense. We also have been supported by the Department of Defense from several others that, as Secretary McHale has said, may not be uniquely demonstrated for homeland defense and homeland security, but have applications in terms of our security and our defense of the homeland.

So therefore, we believe right now that we are making good progress in terms of harnessing technology. I say that a little bit tongue in cheek because we are never satisfied with how fast we are going, because again this is an important mission, this is important business. I would like to put the throttle all the way to the stops here.

I think we are making good progress. There are promising technologies out there. There are technologies that will be appropriate for homeland defense that will also have application in terms of homeland security. In fact, we have entered into a strategic relationship with the Sandia Laboratory and also with the Defense Threat Reduction Agency (DTRA) in terms of sorting our way through technologies that exist today and how those can be applied to homeland defense and homeland security.

Senator DOLE. Thank you very much.

Chairman WARNER. In your direct testimony you talk about this system. For those following this hearing, I think that this system is envisioned to be not unlike the old blimp, which is a part of my generation. But this one presumably will be unmanned, is that correct?

General EBERHART. That is correct, sir.

Chairman WARNER. It would have the duration of perhaps up to a year without servicing and the like?

General EBERHART. It would be theoretically above the weather, Senator, 60,000 to 70,000 feet. So we do not have to deal with thunderstorms and those types of phenomena.

Chairman WARNER. What is that altitude again?

General EBERHART. 60,000 to 70,000 feet, sir.

Chairman WARNER. That is up there.

I am glad you asked that question, Senator Dole, and we are looking into it. It is in our markup right now and perhaps the Senator would want to follow it in the markup, because it may well be that we have to augment your funding profile to make certain that the estimated dates can be met. So thank you, Senator, very much.

Senator Chambliss.

Senator CHAMBLISS. Thank you, Mr. Chairman. That blimp generation was a pretty good generation. You all did all right. [Laughter.]

Chairman WARNER. There are a few of us still surviving. I remember, if I can say as an aside, when I was Secretary of the Navy there was a move afoot out in California to tear down the old blimp—what did we call them, Admiral? They were hangars.

Admiral ELLIS. Hangars, blimp hangars.

General EBERHART. Dirigibles, too. We called them dirigibles.

Chairman WARNER. Dirigibles. But they were magnificently constructed, wooden. I said, no way we are going to tear them down; there might be a future use for them. So there they are. They are still there, are they not, Admiral?

General EBERHART. Yes, sir, at Navy Moffett.

Senator CHAMBLISS. Gentlemen, all three of you have a great challenge in your respective newly created positions and I commend you on getting off the ground and getting going like each of you have.

General Eberhart, you and I, because of my close ties to the Air Force, have had many opportunities to work together over the last 8½ years. I have always been impressed with your dedication, your hard work, and your capability. I could not have been more pleased when I saw who the President's choice for the newly created NORTHCOM commander was. So I again congratulate you and commend you for the good job you are doing.

Mr. Secretary, again you and I go back to our days on the House Armed Services Committee and we have both come a long way since then. Our mutual friends say you have taken a step up and I have taken a step down. I do not know what my House buddies mean by that. [Laughter.]

An issue that has been very important to me over the last couple of years, particularly since September 11, has been the issue of information-sharing between all of our intelligence-gathering agencies, as well as all of our law enforcement agencies at the Federal level all the way down to the State and local level. Each of you have your own respective intelligence piece, but I think most significantly information coming to you from our intelligence gatherers is critically important to winning this battle of protecting our homeland and winning the war on terrorism.

I would just like to hear from each of you as to how that integration and cooperation and dialogue between our intelligence gatherers is working as far as coming to you and as far as information that you gather going back to them with respect to not just the war on terrorism, but any other issues that may be important to us.

Admiral Ellis, if you would start off, please.

Admiral ELLIS. Thank you, Senator. I appreciate the opportunity. You rightly point out the critical element that intelligence provides to whatever we do, whatever our shared responsibilities are in defense of the Nation. It is not enough just to talk sensors. It is not enough to talk about the technology we have and what we need to collect. But it is very important how we process it, how we evaluate it, and how we distribute and disseminate it to the people that need to have it.

So those processes are under stringent review. We have identified new organizational elements that can fuse intelligence more quickly. Some of those have already been mentioned in the course of this hearing. We are exploring other concepts to bring agency representatives more into active participation rather than just liaison officer roles within our organizations. For the first time, I think, we are beginning to look at the entire intelligence, surveillance, and reconnaissance issue as a process, not just as a sensor or, as Ed noted, a platform issue.

So I am pleased that we have made great progress. We are going to try it out. We are making quick changes if we see better ways to do it, and I promise you that it is getting better everyday. It is not yet as good as the Nation must have for the future, but we are working at it.

General EBERHART. Sir, from our perspective we work this problem in several different ways. First of all, hopefully when you visit our command you will see that when we have an intelligence briefing or when we have a staff meeting we are redefining "joint," we are redefining the intelligence community, if you will, because not only will there be military intelligence experts there, but there are experts there representing the entire intelligence community: NSA, CIA, obviously representatives from DIA.

Also, there is an FBI representative there. There are Coast Guard representatives. There are other representatives there, so that we can, in fact, ensure that we are receiving the intelligence and information those agencies have and then, it is a two-way street, make sure that we get back to them any information we have that might be of interest to them.

A perfect example is when we thought we perceived a threat in the State of Arizona recently, our FBI representative was the one who brought that to the intelligence community, and then we immediately, through that FBI representative, ensured that that information was getting played back into the State of Arizona, that their FBI representative there knew, that the local authorities, the State authorities who needed to know, had that information.

So in many cases we find ourselves as the facilitator to make sure that this information is in fact flowing to the right people, knowing that we do not have the lead at this time. Someone else by our Constitution has the lead, but that does not mean that we do not work hard to make sure they have the information that they in fact need.

As we talk about the word "transformation," we also try to think of those types of things we have that we normally think of in terms of a homeland defense, fighting our Nation's war type of perspective, and how we could possibly harness the types of capabilities that Jim Ellis has in terms of reconnaissance, imagery, commu-

nications, et cetera, for the homeland security mission, obviously in accordance with the laws of the land. There are ways to use those capabilities whether we are fighting fires, whether we are in the aftermath of the tragic Space Shuttle Columbia accident, or whatever it might be. There are ways to harness those capabilities that we normally think of in other terms to work homeland security problems.

Secretary MCHALE. Senator, I think it was clear in the immediate aftermath of September 11 that there was an immediate need for the sharing of information across parochial boundaries among those that had a genuine need to know. I can tell you from firsthand observation that the sharing of that information today does indeed take place. It took a very painful experience to teach us that lesson, but the information is now being passed without resistance across boundaries that in the past were major impediments to the passing of information.

As a result of that, what I have observed is that the need now is to bring a sense of analysis and prioritization to huge volumes of information in order to identify within that mass of information what is truly relevant and important with regard to homeland defense. Most of the information in the intelligence world that I see relates to the historic commitment to be prepared to prosecute, if necessary, an overseas war fight. That information is not routinely analyzed in order to bring a homeland defense perspective to the work product.

Now, in order to achieve that result Congress created the new position of Under Secretary of Defense for Intelligence. Secretary Cambone was recently confirmed for that position. We do have robust ties through DIA and through the Joint Intelligence Task Force—Combatting Terrorism (JITF–CT) with other agencies, such as the CIA and the FBI. In fact, I can tell you the sharing of information between the Department of Defense and the Department of Homeland Security is robust and conducted on a daily basis. We in fact send to their operations center those daily updates that are relevant to the mission they have to accomplish.

Now what we have to do is change not only the process of sharing information, but modify the culture related to its analysis. We need to create an unprecedented capability to analyze and understand the homeland defense implications that arise out of huge quantities of data and information that have been compiled for purposes other than homeland defense. We are bringing a sense of urgency to that new homeland defense prioritization.

Senator CHAMBLISS. I agree with you, the analytical part of it is just as critical.

Now, you say that you are sharing with them. Are you getting that same information they gather back?

Secretary MCHALE. Yes. We tap into many of the same sources in terms of collection capabilities, but we have a very robust daily flow of information back and forth. As I mentioned earlier, we have a permanent representative in the operations center. I have been on the phone in the last couple of weeks with Secretary Ridge on a number of occasions where he had a matter that he wanted to bring to our attention in the Department of Defense.

I, Pete Verga, who is seated behind me, and others have routinely—and by that I mean daily—communicated with folks within the Department of Homeland Security with regard to those matters that we need to bring to their attention.

The real challenge now is bringing comprehension and meaningful analysis to enormous quantities of threat-based information where separating the wheat from the chaff is really the difficulty. We have an enormous amount of information. Determining what is significant is much more difficult.

Senator CHAMBLISS. Thank you, Mr. Chairman.

Chairman WARNER. That is an important question you raise, Senator. I would just probe it a little bit.

We have this new concept that the President has established to synthesize in some person. Could not that be the area in which you can get some distillation? I am concerned that if every government agency has this enormous overhead and infrastructure necessary to do their own evaluation, synthesis, distillation, whatever it is—we all recognize the ever-increasing massive amounts of this information—that we have a wide range of redundancy across the government.

Are you familiar with this new setup?

Secretary MCHALE. Yes, sir, I am. I am not directly involved in it, but I certainly have a strong interest as a potential customer in terms of the work product that they will generate. It is the Terrorist Threat Integration Center.

Chairman WARNER. Yes.

Secretary MCHALE. The President proposed it in his State of the Union Address. Secretary Cambone, who was, as I said, just recently confirmed by the Senate, will take over, has taken over, as the Under Secretary of Defense for Intelligence. He and I have spoken at some length on this issue and he will be the representative of the Department of Defense with regard to our integration, our participation in the Terrorist Threat Integration Center, and he understands in some detail the interest that I have in obtaining through him——

Chairman WARNER. I have pointed this out.

Secretary MCHALE. Yes, sir.

Chairman WARNER. I have urged that you all take a look at it.

Secretary MCHALE. The potential benefit is enormous in terms of bringing together into a single stream diverse sources of information.

Chairman WARNER. Now, this committee will be addressing its annual authorization bill. We are midway at doing that now. I recognize that, with the best of intentions, the administration put in place legislation under which you are now operating. But I urge you to bring to the attention of the next level echelon the need you feel for any additional legislation, because now is the time to incorporate it in our bill, assuming it is in the oversight range of this committee.

So that is an open invitation to discuss that with your Secretary of Defense. It would cover all three of you. So take a look at that.

Next is the assets that you have within your respective responsibilities: Are those assets sufficient? As you well know, this committee looks at the President's budget, does its own work, and then

we take into consideration late entries by the administration. It is referred to in some vernacular as a wish list.

But that often is the case because the President's budget is formulated almost a year ahead of time and here we are about a year later. We try and do as much real-time adjustment as necessary. So in terms of assets, if there is something that would meet, in the vernacular, the wish list, I would hope you would bring it to the attention of the committee.

Now, the question of posse comitatus has been of great interest to a number of us here on the committee. I know my colleagues, Senator Levin, and I have discussed this. Is there some ongoing examination, Secretary McHale, of that statute framework to determine whether or not any amendment is necessary?

Secretary MCHALE. Senator, I think the analysis, at least from the Department of Defense's perspective, has been largely completed. I am hesitant to say that it is entirely complete, because I cannot be sure that there is not a lawyer somewhere taking a look at it. But let me tell you where we stand.

First of all, the Department is aware of your concern with regard to the issue and we obviously are aware that you have considered in the past and may still be considering hearings into a possible revision of the posse comitatus statute. Should you choose to move forward with those hearings, you will have the complete cooperation of the Department of Defense in that effort.

Chairman WARNER. It is not necessary to have hearings if the Secretary of Defense has made a decision that he does not think any changes are necessary.

Secretary MCHALE. Sir, I think he has made that decision.

Chairman WARNER. If that is the case, for the record I wish you would give me a supplemental communication on the status of that so that we can take it into consideration of the hearing.

Secretary MCHALE. Yes, sir.

[The information referred to follows:]

The Secretary of Defense stated last year that the current act strikes a proper balance regarding use of the military for law enforcement purposes within the United States. However, he also indicated that he remained open to further review of the issue. Late in 2002, he directed a departmental working group to look into this issue. That working group included representation from U.S. Northern Command. The working group concluded that the President has sufficient authority to order the military to provide military support to civilian law enforcement authorities, when necessary, including in the aftermath of a catastrophic weapons of mass destruction incident, and that no change to the act is required.

A number of significant exceptions to the act have been enacted over the years to allow for the appropriate use of U.S. military forces to assist in enforcing the laws of the U.S. at the request of civil authorities. These exceptions are reflected in current DOD policy. Examples include:

- Insurrection/rebellion (chapter 15 of title 10, United States Code)
- Chemical/biological weapon of mass destruction incident (section 382 of title 10, United States Code)
- Nuclear material incident (section 831 of title 18, United States Code)
- Terrorist incident (Public Law 107–40)

Regarding the potential need for rapid DOD response in domestic emergencies, the Department recognizes that imminently serious conditions resulting from any civil emergency or attack may require immediate action by military commanders, or by other responsible officials of DOD agencies, to save lives, prevent human suffering, or mitigate great property damage. Under such exigencies, when time does not permit prior approval from higher headquarters, local military commanders and other responsible DOD officials are authorized to take necessary action to respond

to the immediate requests of civil authorities. Should a larger response be required, U.S. Northern Command would be prepared to react, as directed by the President and the Secretary of Defense.

DOD is prepared to respond to catastrophic events, as directed. We do not believe that the act would in any way impede the nature or timeliness of that response.

Chairman WARNER. My concern is that if another catastrophe of the magnitude we experienced on September 11 took place, say in another part of the United States which is somewhat remote from the assets that were available to the New York scene, we would have to call upon everybody to pitch in and help, and it could well be that, from the standpoint of local security and the like, the military could step up.

Secretary MCHALE. Yes, sir.

Chairman WARNER. Now, we just do not want, if that misfortune struck the United States, everybody running around on the telephone with the military commander saying, "I would like to help, but I have posse comitatus."

Secretary MCHALE. Sir, let me give you a reassurance on that. We do plan in some detail for those kinds of contingencies and we do have forces prepared to respond in the event that we were to experience that kind of attack and the Department of Defense would be directed by the President or the Secretary of Defense to respond.

However, with regard to posse comitatus, we do not believe that the statute in its current form would in any way impede that response. There are a number of significant exceptions to posse comitatus that have been adopted statutorily over the years, and in terms of our ability to respond, for instance, to a weapon of mass destruction attack, there is an entire command subordinate to General Eberhart that is prepared to launch such a response and we do not believe in the Department that an emergency response involving military capabilities would be impeded in any way by posse comitatus.

Chairman WARNER. Fine. That is your understanding, General Eberhart?

General EBERHART. Yes, sir, it is.

Chairman WARNER. You are satisfied with this. General Ellis, you are satisfied to the extent that somehow you might be affected?

Admiral ELLIS. Yes, sir.

Chairman WARNER. Well then, it may well be that this issue is cared for, but I would appreciate a letter which should contain just the testimony that you have just given as a conclusion on it.

Secretary MCHALE. Yes, sir.

[The information referred to follows:]

ASSISTANT SECRETARY OF DEFENSE
2600 DEFENSE PENTAGON
WASHINGTON, DC 20301-2600

HOMELAND DEFENSE

29 MAY 2003

The Honorable John Warner
Chairman, Committee on Armed Services
United States Senate
Washington, DC 20510-6500

Dear Mr. Chairman:

I am responding to the discussion regarding the Posse Comitatus Act (the Act) that took place when I appeared before your committee on April 8, 2003.

As you know, the Secretary of Defense stated last year that the current Act strikes a proper balance regarding use of the military for law enforcement purposes within the United States. However, he also indicated that he remained open to further review of the issue. Late in 2002, he directed a departmental working group to look into this issue. That working group included representation from U.S. Northern Command. The working group concluded that the President has sufficient authority to order the military to provide military support to civilian law enforcement authorities, when necessary, including in the aftermath of a catastrophic weapons of mass destruction incident, and that no change to the Act is required.

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DoD is prepared to respond to catastrophic events, as directed. We do not believe that the Act would in any way impede the nature or timeliness of that response. I hope this information is useful.

Sincerely,

Paul McHale

cc: The Honorable Carl Levin
Ranking Minority Member

Chairman WARNER. Now, on the unmanned systems, as I think I shared with you yesterday, General, not to get too personal about this, but when I was a young man in the late 1930s and 1940s all of my generation was consumed in making model airplanes. I am sure that there is a successive generation just as active as my generation was many years ago, a half century ago.

But that presents a platform that can deliver some meaningful harm to communities if it fell into the wrong hands. Now, as long

as people are aware of that potential—I hope it is being addressed and steps being taken to monitor certain aspects of it to try and follow what is taking place in the open marketplace and by telephone order or catalogue order or whatever the case may be.

Secretary MCHALE. Yes, sir.

Chairman WARNER. I assume that issue has been addressed and people are looking into it. Is that correct, Mr. Secretary?

Secretary MCHALE. People are looking at it, sir, that is correct.

Chairman WARNER. General?

General EBERHART. Yes, sir.

Chairman WARNER. That is all we need for the record, that it is being examined.

Secretary MCHALE. Sir, I would point out, because of your comment I can guarantee you as soon as we get back I will make sure that even more attention is paid to that issue.

Chairman WARNER. That is just good common sense.

Secretary MCHALE. Yes, sir.

Chairman WARNER. Computer network defense. Admiral Ellis, could you give us an assessment of the threats to our defense information infrastructure and measures you are implementing to protect it?

Admiral ELLIS. I would be delighted, Senator. I have an element under my command, initially established by General Ed Eberhart when it was under the United States Space Command, called the Joint Task Force for Computer Network Operations (JTF–CNO). My responsibility is specific to the task of ensuring Department of Defense network security and it is in that context that I would like to couch my comments.

The JTF–CNO is headquartered here in Washington. It is embedded with the Defense Information Systems Agency because of their role in overseeing the Department's entire communications networks. It has a phenomenal record of success in tracking network intrusions and responding appropriately. They are empowered to establish protective policies, to actually unplug elements of the network should they be placed at risk by attacks, and their entire focus is to ensure the rigor and the integrity of the networks on which the Department is increasingly reliant.

It is also fair to say that we are a part of the growing concern on the Federal Government and national side with regard to the vulnerabilities that are potentially resident in massive computer network attacks, and indeed as a Nation we have become much more reliant on them. A number of initiatives that have begun under this administration, under the former leadership of Richard Clark, specifically, have brought together inter-agency and interdepartmental efforts to oversee this, including the cyber warning information network and agencies and mechanisms to rapidly disseminate the awareness and understanding and sensitivity of what is going on with regard to the health of the network are well under way, and the JTF–CNO commander, a two-star general, is our representative to those agencies.

So we do believe and continue to assess the importance of networks to our future. We are committed to establishing firewalls that prevent intrusion. We also acknowledge that intrusion, even on a small scale, can be particularly devastating and we are pursu-

ing aggressively capabilities to deliver to respond appropriately to intrusions when they occur. So it is not enough to have a perfect defense. One would argue, and I think persuasively, that it is never going to be perfect. The issue is how do you deal with it when it occurs, and we are pursuing those options aggressively, sir.

Chairman WARNER. Thank you very much, Admiral.

The role of unmanned missions. We have a number of off-the-shelf, it could well be in due course. What policy and operational concerns do you have about the use of unmanned systems in homeland security? General?

General EBERHART. Sir, as we discussed yesterday, I am concerned about those technologies should they in fact be used against us by terrorists. That is one issue you have already addressed that concerns me greatly.

Second, I believe that those UAVs can be used very effectively for surveillance, whether it is maritime surveillance, whether it is border surveillance, just as we have used them in downtown Baghdad and other places in surveillance to ensure that in fact we can defeat the bad guy, those who wish us ill.

Obviously, the concerns always are in terms of the safety of those vehicles, in terms of deconflicting those vehicles with other traffic, to make sure that they are properly certified, properly operated, that they do not in fact—that the unintended consequences are not that they present more of a risk than they do an advantage to us as we work our way through those, the use of that technology.

I believe all those things can in fact be overcome and that we will see that these UAVs will become more and more prevalent in the future. But we have to do this correctly and I know that is your concern.

Chairman WARNER. Yesterday I wrote a letter on this subject to the President, since I and other members of this committee are quite interested in it, pointing out the rights of privacy of individuals. We have to be cautious about that issue. I will make that letter a part of the record here. It is a public document.

[The information referred to follows:]

President GEORGE W. BUSH,
The White House,
Washington, DC.

DEAR MR. PRESIDENT: I have long supported the expanded use of unmanned aerial vehicles (UAV) by the United States military, and have been heartened by reports from soldiers in the field of the usefulness of UAVs as "eyes in the skies" in the global war on terrorism, particularly in Afghanistan. As you may recall, under my leadership, the National Defense Authorization Act for Fiscal Year 2001 contained legislation (Section 217) and additional funding ($200 million) to accelerate the use of UAVs by our military. I believe that the potential applications for this technology in the area of homeland defense are quite compelling.

I am writing to request that you explore the option of using UAVs for the critical homeland defense mission.

First, I believe that UAVs could prove most valuable in helping to monitor remote stretches of our northern and southern borders. These areas are historically difficult to police, given the great distances involved, and frequently are patrolled just once in a 24-hour period. Given the fact that al Qaeda operatives, among others, have made it clear that they will seek to gain entry to our country by any means, we cannot afford to leave any route unmanned.

Second, long-endurance, land-based UAVs could support Coast Guard vessels, enabling one ship to monitor longer distances. This could be of great advantage to the Coast Guard, as it seeks to provide homeland security coverage for our 95,000 miles of waterways while not neglecting its traditional maritime responsibilities. In addi-

tion, it would be another weapon in their arsenal as they seek to interdict drug smugglers.

Third, UAVs could be used to monitor the safety and integrity of our Nation's major oil and gas pipelines, and critical infrastructures such as dams, hydroelectric power plants, drinking water conduits and long-distance power transmission lines. They could also be used to monitor the transportation of hazardous cargo, especially industrial chemicals that could be used as a weapon against us.

As with the introduction of any new technology, UAVs have not been problem free. I am aware that, to date, military UAVs have suffered higher than desirable accident rates that will require that their systems be engineered with greater redundancy for use by civilian agencies. In addition, they do not have the ability to detect, and automatically avoid, nearby aircraft. These are important safety issues that would have to be addressed before employing UAVs over populated areas, and in flight paths utilized by both commercial and private aircraft, including helicopters.

Additionally, it is essential that any examination of this concept address the real concerns we all share about the possible loss of privacy. I know that you are as committed as I to ensuring that we meet our national security needs without unduly sacrificing the privacy rights of our citizens. There may be many detractors to the idea of using UAVs for other than military purposes based solely on the concerns regarding privacy.

Lastly, I confess that, as a young man in the late 1930s and early 1940s—before I began my military service in the Navy—I was fascinated with aviation, and built many a model airplane. I draw your attention to all the work being done within your administration to recognize that someone desiring to bring harm to our Nation could utilize this wonderful hobby by utilizing model airplanes to spread chemical and biological agents. The administration might find it necessary to have some congressional recognition of this important and rapidly expanding technology to further insulate and protect our people from possible harm.

There is broad agreement in this country that we must be proactive in ensuring that terrorists never again strike our shores. You have championed the idea of transforming our military services from being a force designed to fight the former Soviet Union to one tailored to 21st century adversaries, especially those utilizing terrorism as a weapon. I believe that considering the use of UAV technology in homeland defense echoes that spirit of transformation.

Mr. President, I hope that you will receive this idea in the constructive spirit in which it is offered.

With kind regards, I am

JOHN W. WARNER.

Chairman WARNER. Do you have anything further to add about the UAVs, Secretary McHale?

Secretary MCHALE. Yes, sir, I do. My personal experience with them goes back to the Gulf War. We used them in the Gulf when I was there the last time around as a marine, so I am familiar not only with the policy issues, but the actual operational employment of UAVs.

The use falls into two categories. I think there is a tremendous potential benefit from the effective offshore use of UAVs as part of an integrated surveillance plan that in turn might be coordinated with a sea-based array of WMD sensors. We establish various platforms in the air to observe threats as they approach our shores and then array a maritime sensor system that might well detect a weapon of mass destruction while still out in the blue water. So I think whether you are talking about an airship or a UAV, we have to push out as far as we can the surveillance and other capabilities of a maritime defense in depth.

Second, coming ashore, we can make certain capabilities available to lead Federal law enforcement agencies for their primary use with regard to domestic activity. We would make equipment available at the direction of the President and the Secretary of Defense and subject to whatever privacy constraints Congress might want to impose upon that lead Federal law enforcement agency.

So I think UAVs play a significant potential role both in traditional defensive missions, where we would take the lead, and in law enforcement missions, where we would simply provide support to a properly constrained domestic law enforcement agency.

Chairman WARNER. If these vehicles become somewhat more prolific in the private sector—I mean, some of these companies might well offer them to the private sector—then you have an air space situation that has to be hopefully monitored within the structure that you are in.

Secretary MCHALE. Yes, sir.

Chairman WARNER. Admiral Ellis, any point you would like to make on UAVs?

Admiral ELLIS. Sir, I think you have teed it up very well. This is yet another issue that builds on several others that, as we look at the tremendously changed national security environment, we have to balance appropriately between the need for that intelligence essential to our defense and the rights to privacy and personal security that are an important part of being an American.

This is the same challenge we face in the computer network operations area, in the intelligence issues that you are well familiar with, sir, as we look to better fuse that together. This adds to that and just highlights the direction in which we are going as we, as a Nation, address those trades between needing more actionable information, and the rights of the individual citizens that have to be held in appropriate regard.

Chairman WARNER. Thank you.

Senator Levin.

Senator LEVIN. Admiral, you made reference to the computer network defense mission in response to the chairman's question and then made an allusion as to the offensive possibilities of computer network operations. In that regard, have you had a chance to study the various legal implications of an offensive mission?

Admiral ELLIS. Yes, sir. The issues that you describe within computer network operations writ large, including both defense and attack, are an important part of any policy consideration as we look to the future. The Department of Justice and others have undertaken reviews and it is an important part of what we do as we look for policy guidance on the way ahead, even as we examine technological alternatives.

The computer network operations piece is particularly challenging because it is possible to employ the global information grid in manners that disguise, if not hide, the origin of certain elements. So there is an increasing challenge in knowing where the potential threats to our own systems originate. They can be laundered, if you will, through various routes and mechanisms, and so there are legalities associated with that as we address the issues that I was discussing with the chairman: how do we deal with the rights of American citizens and still deal with the security element.

The obverse of that, of course, is on the computer network attack side as we examine potential capabilities for the future.

Senator LEVIN. What are some of the legal issues that you are grappling with in that area in terms of attack?

Admiral ELLIS. I would be happy to provide a more detailed discussion for the record.

Senator LEVIN. Would you do that, thank you.

[The information referred to follows:]

The legal issues related to computer network attack are generally the same as employment of any class of weapon in time of conflict. First, a test-bed needs to be developed so we can accurately predict the effects of network attack. The results of the tests will allow a fact-based evaluation of the discrimination and proportionality judgments that form the basis of all Law of Armed Conflict. In other words, we must strive to accomplish military objectives without causing unnecessary damage to civilian infrastructure, and determine the best methods to achieve dominance over an adversary using the least amount of force.

Additionally, in all military actions we seek to limit the negative effects of operations on those who are not combatants. On the attack side of network operations, we must consider the effects a potential course of action will have, not only on the physical well-being of non-combatants, but also their personal privacy along with other human rights concerns. We are committed to decreasing the humanitarian cost of conflict wherever possible.

Senator LEVIN. Secretary McHale, I want to go back to the intelligence coordination issue, which is something that I have been deeply concerned about for a long time. We went through a number of hearings on this subject and the conclusion of the new Department of Homeland Security, and I think everybody else, was that the CTC is the primary location to analyze foreign intelligence. The new TTIC would then take those analyses, supplement it in any way they wanted, refer it back to the CIA and CTC for additional analyses, and then integrate those analyses on foreign intelligence, intelligence about foreign terrorist threats, integrate that with any domestic threats——

Secretary MCHALE. Yes, sir.

Senator LEVIN.—and then link all of that to infrastructure vulnerabilities. But that is all done between the CTC and the Department of Homeland Security.

How does the Department of Defense link up to the TTIC? Could you go through that again with us?

Secretary MCHALE. It will be on two levels. On the tactical level, DIA has a JITF–CT and the JITF–CT is the principal portal between tactical intelligence external to the Department of Defense and the internal needs of the Department of Defense to be aware of that information.

On a policy level, the new Under Secretary of Defense for Intelligence will take the lead in terms of coordination with the Terrorist Threat Integration Center. So as a practical matter, on a daily basis I would anticipate that the JITF–CT would remain the principal day-to-day contact with the international and domestic intelligence community, subject to the supervision of the newly created position of the Under Secretary of Defense for Intelligence.

As a practical matter, what that means is every day I start with a DIA briefing. Most of the information they bring to my attention has been given to them from their JITF–CT and so I have daily and I think open access to that information which is deemed to be of domestic significance, whether it is gathered internationally or domestically.

Senator, it is also significant that, as I said, I start the day with that DIA briefing, but minutes later, at the direction of the Secretary of Defense, I attend with him each day his briefing on these issues, at least during a wartime environment. So I first get the briefing from the DIA and then I am able to attend and hear the

same information covering those and perhaps some additional topics that might be presented to the Secretary of Defense.

I think that really highlights the importance the Secretary has placed, not on me, but on the office that I am privileged to hold.

Senator LEVIN. Thank you.

General Eberhart, your prepared statement mentions that the JTF–CS provides command and control of consequence management forces that would be responding to a chemical, biological, radiological, nuclear, or high-yield explosive event. How would that JTF–CS and these forces be coordinated with efforts of the Department of Homeland Security, as well as with State and local emergency response forces?

General EBERHART. Sir, there is a variety of ways that this would happen. First of all, an incident occurs and a determination is made at that time that in fact the local responders or the State agencies or other Federal agencies do not have the wherewithal to deal with this problem. At that time a lead Federal agency would in fact be established and they would request what they thought was appropriate military support.

If in fact we thought the military support was best provided by the JTF–CS, that is where we would go for those capabilities.

I do not want to lead you to believe that we are just sitting there waiting, doing nothing, in case somebody might call. Hopefully, we would have some intelligence up front that this might happen. Second, as soon as it occurs we will know that it has occurred. So that, in football terminology, we are dressing out for the game. We are getting ready, so if they call us we can shorten the amount of time it takes us to respond with qualified people to help alleviate the situation.

Then we will in fact respond to this area, initially with a planning force, then with follow-on forces to help. We have everything from transportation to ambulance capabilities to medical capabilities to abilities to help establish a cordon or whatever we think is appropriate.

In almost every case, Senator, we would be in support of another lead Federal agency, probably FEMA. It could be someone else if they had established that another agency is best suited to be the lead Federal agency. We take our instructions from that agency, but we would in fact command and control those forces.

Most likely that commander would report directly to me. Depending on the situation, we may have him report to another one of our subordinate commanders if we thought that was appropriate. But those people work daily and they study response plans from various counties, our large cities. The counterterrorist organization from the city of New York will soon visit down there.

So we are trying to in fact oil this mechanism so that people know each other, we share plans, and we are prepared to respond if and when needed.

Senator LEVIN. Thank you.

Thank you, Mr. Chairman.

Chairman WARNER. Gentlemen, we have had an excellent hearing, well-attended by a large number of this committee. It is going to be extremely helpful to us as a committee and indeed the Senate as a whole to recognize with the detail you have given us the very

significant participation by the Department of Defense in the overall responsibility for homeland defense.

We shall continue to follow this as one of the highest priorities of this committee. We thank you and I once again encourage you to access this committee for such assistance as you need with regard to legislation and to such priority of asset flow as authorized and eventually appropriated here in Congress. So we are off to a good start.

Thank you for traveling long distances, Admiral Ellis and General Eberhart, and it is always a pleasure to have a former member of the United States Congress facing us. We know full well that you are prepared for all of our questions.

Secretary MCHALE. Thank you, sir.

Senator LEVIN. Particularly one who wears glasses just as wonderful as your's. [Laughter.]

Secretary MCHALE. I think we bought them at the same drugstore. [Laughter.]

Senator LEVIN. Mr. Chairman, thank you for convening the hearing. Thanks to our witnesses for very useful testimony.

Chairman WARNER. Thank you. We are adjourned.

[Questions for the record with answers supplied follow:]

QUESTIONS SUBMITTED BY SENATOR JOHN CORNYN

TRANSFER OF INTELLIGENCE INFORMATION TO STATE AND LOCAL AUTHORITIES

1. Senator CORNYN. Secretary McHale, it is important that State and local law enforcement officials have the most accurate information as possible about any potential threats to our communities. At the same time, we need to safeguard sources and methods when it comes to intelligence reporting. However, we must strike the appropriate balance between protecting sources and methods and getting this information to the people who need it. Could you explain how you will work within the Department of Defense (DOD) and with the Department of Homeland Security (DHS) to ensure that the appropriate intelligence information gets to the right people at the State and local level so we can better protect our communities?

Secretary MCHALE. Within the DOD, as the principal staff assistant and advisor on all homeland defense matters, I will work closely with the Under Secretary of Defense for Intelligence, Dr. Stephen Cambone, who serves as the Secretary of Defense's Principal Staff Assistant and advisor on all intelligence, counterintelligence and security, and intelligence-related matters, to ensure that DOD provides appropriate intelligence information to the DHS. The DHS then, in accordance with Public Law 107–296 (the Homeland Security Act of 2002) Sections 102 and 201, is responsible for "distributing or, as appropriate, coordinating the distribution of, warnings and information to State and local government personnel, agencies, and authorities and to the public."

FORCE PROTECTION AT MILITARY INSTALLATIONS

2. Senator CORNYN. Secretary McHale, I am privileged to have 17 major military installations in my State. As such, I am particularly concerned that DOD has adequate and standardized force protection measures in place at our military bases not only in Texas but across the country. Last year, Congress directed DOD to develop a comprehensive plan for improving the preparedness of military installations for preventing and responding to a terrorist attack. Could you provide me an update on the plan's progress and discuss your role in ensuring that we have the proper force protection measures in place at our Nation's bases?

Secretary MCHALE. Section 1402 of the Fiscal Year 2003 National Defense Authorization Act directs DOD to develop a comprehensive plan for improving the preparedness of military installations for preventing and responding to terrorist attacks, including attacks involving the use or threat of weapons of mass destruction. DOD is presently staffing the plan and will submit it to Congress later this year. The report defines elements of installation preparedness to include prevention, detection, protection, and emergency response functions. The plan also addresses a va-

riety of initiatives the DOD is presently undertaking to determine those "best practices" needed to enhance installation preparedness through an integration of technology and human capital. In my role as the Assistant Secretary of Defense for Homeland Defense, my office is responsible for a variety of issues, including force protection concerns as related to installation preparedness. As base force protection conditions change due to the evolving threat, corresponding flexible protective measures are activated. Flexible employment of such measures allows a timely, focused response.

INTELLIGENCE SHARING BETWEEN NORTHCOM AND THE TERRORIST THREAT INTEGRATION CENTER

3. Senator CORNYN. General Eberhart, in your opening statement you note that "homeland defense relies on the sharing of actionable intelligence among the appropriate Federal, State, and local agencies," and that NORTHCOM's "Combined Intelligence and Fusion Center collates and analyzes data from the United States Intelligence Community and nearly 50 different government agencies." Could you elaborate on the relationship between NORTHCOM's Combined Intelligence and Fusion Center (CIFC) and the Terrorist Threat Integration Center (TTIC)?

General EBERHART. We are laying the groundwork for partnerships with the TTIC and other key intelligence organizations. We plan to embed command intelligence officers in the TTIC to ensure continual collaboration and information exchange.

TRANSFER OF DOD TECHNOLOGY TO OTHER FEDERAL, STATE, AND LOCAL GOVERNMENT ENTITIES

4. Senator CORNYN. Secretary McHale, last year's Defense Authorization Bill directed the Secretary of Defense to designate a senior official to facilitate the transfer of DOD technology to State and local first responders and other Federal entities. Could you tell me your views on what DOD technologies you believe have the greatest potential homeland security application, particularly in the area of border surveillance, and how you plan to facilitate the transfer of such technologies to other government entities?

Secretary MCHALE. DOD participates in many interagency efforts to transfer applicable technologies to first responders. For example, DOD invests around $100 million annually in the Technical Support Working Group (TSWG), the U.S. national forum that brings together over 85 Federal agencies to identify, prioritize, and coordinate interagency and international research and development (R&D) requirements for combating terrorism. The TSWG rapidly develops technologies and equipment to meet the high-priority needs of the combating terrorism community, and addresses joint international operational requirements through cooperative R&D with major allies.

Most, if not all, of the technologies considered by TSWG have homeland security applications—especially in the areas of prevention and response. Examples of technologies that may be of interest in the area of border surveillance include: technologies to detect explosives, weapons, chemical and radiological material, and other contraband on or in personnel, vehicles, vessels, cargo, and mail; advanced technologies for invisibly marking moving or stationary targets that may be imaged remotely, day or night; improved body armor and standards to provide greater effectiveness against current and emerging threats; and advanced optical systems to provide improved imaging in night and obscured viewing environments.

Section 1401 of Public Law 107–314, the Bob Stump National Defense Authorization Act of Fiscal Year 2003, directed that "the Secretary of Defense shall submit to the congressional defense committees a report on the actions taken to carry out this section," to include "[a] summary of the actions taken or planned to be taken to implement" the responsibilities of the designated senior official and "an initial list of technology items and equipment identified" pursuant to the execution of these responsibilities. In coordination with the Office of the Under Secretary of Defense for Acquisition, Technology, and Logistics, my office is developing the report that will outline the process we will utilize to match DOD technology and equipment with first responder requirements.

QUESTIONS SUBMITTED BY SENATOR EDWARD M. KENNEDY

SYSTEMS FOR FORCE PROTECTION AT MILITARY INSTALLATIONS

5. Senator KENNEDY. Secretary McHale, I would like to ask you a few questions about the protection of U.S. forces and installations, and how well the Department of Defense utilizes commercially available technology to achieve these missions. As homeland defense encompasses the protection of critical defense infrastructure against external threats, this issue appears to fall squarely within your purview.

It is my understanding that whereas every U.S. embassy and every airport is protected with explosive trace detection systems, metal detectors, and x-ray scanners, there are very few of these systems deployed at military installations around the Nation and abroad. I played a role after the attack on the U.S.S. *Cole* in supporting the Navy in its effort to outfit all ships in the fleet with explosive trace detectors, to help prevent a recurrence of such a horrible event. But I fear that the Defense Department has not adopted widespread use of these systems and is failing to provide adequate force protection as a result.

What is the current level of use of these types of detection systems at Defense Department facilities?

Secretary MCHALE. Explosive trace detection systems, metal detectors, and x-ray scanners are presently employed at numerous DOD facilities worldwide. However, these capabilities are not universal. Concerted efforts are underway in each of the Services to increase the availability of equipment and systems to protect our installations and facilities. For example, the Army is executing a program to provide equipment packages to security forces at Army installations worldwide. The package includes large mobile vehicle inspection systems, explosive trace detection systems, x-ray inspection systems for cargo containers, portable and fixed barriers, closed circuit television cameras, portable light sets, and under-vehicle inspection capability. The Air Force, Navy, and Army have employed large vehicle imaging systems at some locations. The Navy is working to procure metal detectors and baggage scanning equipment (x-ray imaging) for larger ships. The Air Force has purchased baggage-scanning equipment (x-ray imaging) for their passenger terminals and mailrooms. Additionally, the Marine Corps has plans to purchase trace detectors in support of their Explosive Ordnance Detection (EOD) mission and the Navy has employed these systems in their shipboard operations. Furthermore, DOD is investing in a research, development, test, and evaluation (RDT&E) effort to field a neutron electric generator-based scanning system to automate threat recognition for large vehicles/containers.

6. Senator KENNEDY. Secretary McHale, who in the Department sets requirements for the acquisition and deployment of such systems?

Secretary MCHALE. The individual Services set requirements for acquisition and deployment.

7. Senator KENNEDY. Secretary McHale, which office sets standards for the testing and evaluation of these systems?

Secretary MCHALE. Within the Physical Security Equipment Advisory Group (PSEAG) and in accordance with DOD Directive 3224.3, the Navy oversees the RDT&E of explosive detection equipment (EDE). A CAPSTONE Requirements Document for EDE has been drafted and forwarded to the Joint Requirements Working Group of the PSEAG. Specific key performance parameters were included in this overarching document. The Naval Explosive Ordnance Disposal Technology Division, Indian Head, MD has been assigned as the Navy's Technical Development Agent (TDA) for EDE.

8. Senator KENNEDY. Secretary McHale, my understanding is that other agencies in the Federal Government have conducted extensive tests on these types of detection systems, such as the DHS—including the Transportation Security Administration, the Customs and Border Protection, and the Coast Guard—the Department of State, and the Department of Transportation. Does the Department of Defense plan to reinvent the wheel in evaluating these systems for its own use, or will it cooperate with these other agencies and take advantage of the analyses already conducted?

Secretary MCHALE. To ensure the timely acquisition of the most effective force protection capability available, the Department continually evaluates test data from all sources of force protection technology. As an example, the test and evaluation efforts of the FAA in the area of trace detection have been leveraged extensively. DOD also uses State Department and U.S. Customs test data when deciding which

commercial barrier systems and x-ray systems best meet the needs of the Services. Additional test and evaluation may be conducted when the efforts of other agencies do not fully address our requirements. As an example, additional evaluations may be conducted when the leveraged results have not considered unique safety or climatic conditions. The explosive detection equipment RDT&E program conducted on behalf of the DOD PSEAG has coordinated much of their work with other government agencies, academia, and the private sector. Over the past 3 years, the Navy has conducted comparative studies of trace explosive detectors, mailroom screening systems, and large vehicle imaging systems. Test results are shared with these agencies and all branches of the military.

9. Senator KENNEDY. Secretary McHale, I understand that this may be out of your direct purview, but it certainly relates to your responsibilities for protecting facilities and people. Do you know whether these types of systems are being planned for deployment in Iraq to protect our troops and the personnel helping to rebuild Iraq from terrorist bombs?

Secretary MCHALE. This is not a matter in my direct purview; however, I am given to understand that forward operating bases in Iraq are protected by guarded perimeters with controlled access points patrolled by personnel with specialized equipment capable of detecting explosives and weapons.

FIRST RESPONDERS

10. Senator KENNEDY. Secretary McHale, I understand that part of the mission for your office is to assist the State and local public safety agencies to utilize DOD dual-use technology to enhance their response to acts of terrorism and other critical incidents. What process do you anticipate using to match the needs and requirements of first responders?

Secretary MCHALE. Section 1401 of Public Law 107–314, the Bob Stump National Defense Authorization Act of Fiscal Year 2003, directed that "[t]he Secretary of Defense shall designate a senior official of the Department of Defense to coordinate all Department of Defense efforts to identify, evaluate, deploy, and transfer to Federal, State, and local first responders technology items and equipment in support of homeland security." I anticipate that I will be designated this senior official.

Section 1401 also directed that "the Secretary of Defense shall submit to the congressional defense committees a report on the actions taken to carry out this section," to include "[a] summary of the actions taken or planned to be taken to implement" the responsibilities of the designated senior official and "an initial list of technology items and equipment identified" pursuant to the execution of these responsibilities. In coordination with the Office of the Under Secretary of Defense for Acquisition, Technology, and Logistics, my office is developing the report that will outline the process we will utilize to match DOD technology and equipment with first responder requirements.

11. Senator KENNEDY. Secretary McHale, how can DOD create a permanent interface with this community?

Secretary MCHALE. While the report on technology and equipment transfer to civil responders required by Section 1401 of Public Law 107–314 (the Bob Stump National Defense Authorization Act of Fiscal Year 2003) and, therefore, a more complete answer to your question, remains in development, two stratagems for maintaining a permanent interface are:

First, we can continue to leverage existing forums that have successfully engaged with first responder needs, such as the TSWG and the InterAgency Board on Standardization and Equipment. These two groups have had considerable success in properly interfacing with the first responder community.

Second, we can work with the DHS; and more specifically, the Office of State and Local Coordination. Working cooperatively with DHS allows both DOD and the first responder community to have a single Federal clearinghouse rather than multiple, potentially confusing and competing Federal clearinghouses.

12. Senator KENNEDY. Secretary McHale, what benefits do you anticipate from this connection for both DOD and the first responder communities?

Secretary MCHALE. I anticipate mutual benefits for DOD and the first responder community. As demonstrated by DOD's successful participation in such interagency efforts as the InterAgency Board on Standardization and Equipment and the TSWG, DOD can be a valuable source of useful technologies to first responders.

DOD benefits materially and procedurally. For example, when the first responder community purchases a technology also used by DOD, the cost-per-unit may decrease as the number of units purchased increases. Additionally, the first responder community can be a rich source of lessons learned on the use of these technologies in urban and humanitarian operations.

CIVIL LIBERTIES

13. Senator KENNEDY. Secretary McHale, the military's ability to act on U.S. soil is limited by the Posse Comitatus Act and other legislative provisions, which prevent the military from traditional law enforcement activities, such as engaging in search and seizures. How do we balance these limitations against the increased role of the military in homeland security?

Secretary MCHALE. Under the Constitution, the President, as Commander-in-Chief, may order the military to perform specific domestic missions under extraordinary circumstances. In addition to the President's constitutional authority, Congress has specifically vested the President with certain statutory authority to employ members of the Armed Forces. The insurrection statutes at 10 U.S.C. § 331, et. seq., and Public Law 107–40, which grants the President authority to respond to terrorist incidents, are two examples of this type of legal authority. Other statutes authorize use of the Armed Forces and its unique capabilities in providing support to other agencies during domestic missions, operations, and activities. These include the Stafford Act, the Economy Act, and Chapter 18 of Title 10, United States Code, regarding military support to civilian law enforcement agencies.

Immediate emergency response authority permits commanders to take prompt action to respond to requests from civil authorities to save lives, prevent human suffering, or mitigate great damage to property as a result of civil disturbances, disasters, or calamities seriously endangering life and property. Immediate emergency response is authorized only when time does not permit local commanders to seek and receive appropriate approval from the chain of command.

The potential applicability of the Posse Comitatus Act is evaluated and resolved before military personnel undertake any mission, operation, or activity on U.S. territory, especially when providing support to civil law enforcement authorities. Since the President has constitutional and statutory authority to use the military to provide support to civil authorities, the Department does not believe that the act would impede the nature or timeliness of DOD support when directed to provide support by the President.

14. Senator KENNEDY. Secretary McHale, given the increased role of the National Guard in homeland security, those individuals are blurring the line between law enforcement and military operations. The Fourth Amendment is a very complex body of law. Are National Guardsmen receiving training in Fourth Amendment search and seizure law?

Secretary MCHALE. While in State Active Duty (State-controlled/State-funded) or Title 32 status (State-controlled/Federally-funded), National Guard Forces are not under the command and control authority of the Secretary of Defense or the President. Also, while in State Active Duty or Title 32 status, National Guard Forces are not subject to the provisions of the Posse Comitatus Act.

The only training of a Fourth Amendment nature is MACDIS (Military Assistance for Civil Disturbances) training. National Guard units of select States are required to conduct annual sustainment training in this area. This training covers apprehension and detention operations, which includes searches of an individual in order to protect the safety of an apprehending soldier. In practice, apprehensions in a MACDIS situation are generally done by civil law enforcement officers or by guardsmen under their supervision. Further, National Guard Forces in State Active Duty or Title 32 status normally operate under State laws and each State grants their National Guard Forces different levels of law enforcement powers.

15. Senator KENNEDY. Secretary McHale, are they aware of the applicable doctrines and exceptions?

Secretary MCHALE. While in State Active Duty or Title 32 status, National Guard Forces are not under the command and control authority of the Secretary of Defense or the President. Also, while in State Active Duty or Title 32 status, National Guard Forces are not subject to the provisions of the Posse Comitatus Act.

While in State Active Duty or Title 32 status, National Guard Forces operate under State laws and each State grants their National Guard Forces different law enforcement powers. Some of the States' Rules for the Use of Force (RUF), employed

by National Guard Forces when operating in their State, include minimal authority for searches and seizures, primarily used to apprehend and to protect the National Guard member from individuals being apprehended. In other States, RUF status allows somewhat broader search and seizure authority, such as searches of private vehicles for weapons. Examples of these States are Vermont, Texas, Illinois, and Nevada.

Federalizing National Guard Forces to perform domestic law enforcement functions is the least effective and efficient method of employing our National Guard and the DOD method of last resort. The most appropriate status for them to perform such functions is in State Active Duty status. In the extremely rare occasion that National Guard Forces are federalized to perform law enforcement functions, members will receive appropriate training in Fourth Amendment search and seizure law.

16. Senator KENNEDY. Secretary McHale, have they received training in ethnic and racial profiling?

Secretary MCHALE. While in State Active Duty or Title 32 status, National Guard Forces are not under the command and control authority of the Secretary of Defense or the President.

Each State's judicial authorities establish the applicable legal authorities under which their respective National Guard members will operate when under State control. Since National Guard members are not granted full State law enforcement powers, ethnic and racial profiling is not seen as applicable to the National Guard.

Federalizing National Guard Forces to perform domestic law enforcement functions is the least effective and efficient method of employing our National Guard and the DOD method of last resort. The most appropriate status for them to perform such functions is in State Active Duty status.

[Whereupon, at 12:33 p.m., the committee adjourned.]