

DEPARTMENT OF DEFENSE APPROPRIATIONS FOR FISCAL YEAR 2016

WEDNESDAY, MARCH 4, 2015

U.S. SENATE,
SUBCOMMITTEE OF THE COMMITTEE ON APPROPRIATIONS,
Washington, DC.

The subcommittee met at 10:32 a.m., in room SD-192, Dirksen Senate Office Building, Hon. Thad Cochran (chairman) presiding.
Present: Senators Cochran, Shelby, Collins, Blunt, Reed, and Schatz.

DEPARTMENT OF DEFENSE

DEPARTMENT OF THE NAVY

OFFICE OF THE SECRETARY

STATEMENT OF HON. RAY MABUS, SECRETARY

OPENING STATEMENT OF SENATOR THAD COCHRAN

Senator COCHRAN. The committee will please come to order. We are delighted to be able to welcome a distinguished panel of witnesses to discuss the fiscal year 2016 budget submission of the Navy and Marine Corps.

Our hearing will review the budget requests that have been submitted to the Congress. And we are also very pleased to personally welcome each of you distinguished leaders in our military forces here today: the Honorable Ray Mabus, Secretary of the Navy; Admiral Jonathan Greenert, Chief of Naval Operations; and General Joseph Dunford, Commandant of the Marine Corps.

For fiscal year 2016, the President's budget is requesting \$161 billion in base funding to support the Navy and Marine Corps. The request is \$11 billion higher than the current level of funding.

The request also includes \$7 billion to support ongoing overseas contingency operations. These funds support the forward deployment of sailors and marines throughout the world and the important work done every day to ensure our Nation's security.

This committee recognizes the uncertainty of the current fiscal environment on the Navy and Marine Corps. If the Department of Defense has to live with the budget caps in fiscal year 2016, the Navy has already indicated that it will not be able to support the current defense strategy.

We appreciate the complexity of building the fiscal year 2016 budget and look forward to any comments this distinguished panel of witnesses will make in regard to the health and well-being of our

services, as well as the work and dedication put to the challenge of protecting our national security interests by all of the men and women under your command.

Our committee looks forward to working with each of you closely as we work our way through the fiscal year. We are confident this leadership, and the men and women who serve in our Armed Forces, will protect the security interests of our country.

Mr. Secretary, the floor is yours, and we welcome you to make any comments that you see fit.

SUMMARY STATEMENT OF HON. RAY MABUS

Secretary MABUS. Thank you, Mr. Chairman, my home State Senator, and members of the committee. Thank you so much for this opportunity to discuss the Department of the Navy.

Here, with Chief of Naval Operations John Greenert, Commandant of the Marine Corps Joe Dunford, I have the great privilege of representing the sailors and marines, the civilians who support them, and all of their families.

This is Admiral Greenert's last posture testimony before this committee. He has been a steady hand on the helm of the U.S. Navy through the past 4 years of international instability and budget turbulence. Every day, his judgment, his advice, his counsel, have been critical. It is an honor to serve with him, and he will leave a lasting legacy.

Today, our security interests face an increasing array of threats and demands, while our budgetary situation grows more challenging and complex. But it is clear that the Navy and Marine Corps team offer the best value to advance both our global security and our economic interests.

Uniquely, the Navy and Marine Corps provide presence around the world, around the clock. We are the Nation's first line of defense, ready for anything that might come over the horizon. Presence means we respond faster; we stay on station longer; we carry everything we need with us; and we do whatever missions are assigned by our Nation's leaders without needing anybody else's permission.

We have always known that America's success depends on an exceptional Navy and Marine Corps. Article I of our Constitution authorizes you in Congress to raise an army when needed, but it directs you to provide and maintain a navy.

From the first six frigates to our growing fleet today, from Tripoli to Afghanistan, sailors and marines have proven the Founder's wisdom. American leaders across the political spectrum have understood the vital significance of seapower.

We are truly America's away team. We deploy just as much in peace as we do in war. And our role in the last 70 years in securing sea lanes and freedom of commerce has boosted our own and the world's economy.

Nearly half of the world's population lives within 100 miles of the sea. Ninety percent of global trade goes by sea, and 90 percent of all voice and data go under the sea. The shelves of our stores are stocked through just-in-time delivery with products from all over the globe, and some 38 million jobs in America are directly linked to seaborne international trade.

For seven decades, the Navy and Marine Corps have been the primary protector of this international system that has created unprecedented economic growth. And while we have led this effort, we have worked with allies and partners, increasing interoperability, establishing relationships that also help keep the peace. That is why the National Defense Strategy that we have today is so clearly focused on the maritime domain and requires investment in maritime assets.

For the past few years, the Department of the Navy has attempted to minimize the impact of an uncertain budgetary environment marked by numerous continuing resolutions, imposition of sequester-level funding, and the threat of the return of sequestration. This environment has made it more difficult, but even more critical, to set priorities and make hard choices.

The presence that our Navy and Marine Corps uniquely delivers is built on four foundations: people, platforms, power, and partnerships. These are the keys to the capability, capacity, and success of our naval services, and they remain my top priorities.

Our people, our sailors and marines, are well-known for their ability to exercise independent judgment and the flexibility to adapt to changing circumstances or environments. We remain committed to providing our sailors and marines and our civilians with the training and support they need to maintain our naval presence. And we include in this their dedicated families and our wounded.

We have launched a comprehensive approach to ensure it's the world's healthiest, fittest, most-resilient, and best-educated force truly representing America's diversity. We continue to aggressively combat sexual assault, abuse, ethical failings, and similar challenges.

But our people, as good as they are, can't do their job without platforms. Providing presence, being where we are needed, when we are needed, requires ships, submarines, aircraft systems, equipment. Quantity has a quality all its own. And the main thing that means is that we have to have a properly sized and balanced fleet.

On September 11, 2001, the Navy's battle force stood at 316 ships. By 2008, our fleet had declined to 278 ships. Our focus on two ground wars only partly explains this decline.

In the 5 years before I took this job, the Navy contracted for only 27 ships, not enough to stop the slide in the size of the fleet. In the first 5 years I have been in this job, we have contracted for 70 ships, halting and reversing the decline. And by the end of this decade, we will be at 304 ships.

We have accomplished this with a direct and fundamental business approach: increasing competition; relying more on fixed-price contracts; and thanks to this committee and Congress's help, multiyear and block buys.

But budget instability and uncertainty seriously erode our ability to grow our fleet, manage our resources, and maintain the industrial base.

In the face of this budgetary uncertainty, cutting ships is the most damaging, dangerous, and least reversible course of action, which is why I am committed to preserving shipbuilding.

Fueling those ships, aircraft, vehicles of our Navy and Marine Corps is a vital operational concern and enables the global pres-

ence necessary to keep the Nation secure. That is why the Navy has a history of innovation, particularly in energy, moving from sail to steam to oil to pioneering nuclear. In all cases, we believe our national security interests and the ability of the Navy and Marine Corps to meet its missions must be enhanced by increasing our energy diversity and efficiency.

And finally, our ability to maintain presence and advance global security will also be augmented through partnerships. Cooperation makes us more effective.

Again and again, naval forces have proven themselves the most immediate, the most capable, and the most adaptable option when a crisis develops. Overall, the fiscal year 2016 President's budget balances current readiness needed to execute our assigned missions while sustaining a highly capable fleet.

That tough budget climate, however, demands our most rigorous examination of every dollar we spend. And we must continue our aggressive efforts to cut unnecessary costs in every program, and shift resources from tail to tooth.

PREPARED STATEMENT

I want to thank this committee for all that you have done to ensure that the Navy and Marine Corps remain the preeminent fighting force in the world. When America has called, the Navy and Marine Corps have always answered.

I look forward to answering your questions and working along with you, the Commandant, and the CNO (Chief of Naval Operations) to maintain our great Navy and Marine Corps.

Thank you, Mr. Chairman.

[The statement follows:]

PREPARED STATEMENT OF HON. RAY MABUS

MARITIME PRESENCE IS CRITICAL IN TODAY'S WORLD

Chairman Cochran and Vice Chairman Durbin, members of the Committee, thank you for affording this opportunity to discuss readiness and posture of the Department of the Navy. With Chief of Naval Operations Jonathan Greenert and Commandant of the Marine Corps Joseph Dunford, I have the great privilege of representing the Sailors and Marines who serve our Nation around the world, the civilians who support them and all of their families.

I cannot let it pass without noting that this will be Admiral Greenert's last posture testimony before this committee. He has been a steady hand on the helm for the U.S. Navy through the past 4 years of international instability and budget turbulence. Every day his judgment, his advice and his counsel have been critical. He has been a great CNO, and it has been an honor to serve with him. He will leave an enduring legacy of having advanced the interests and capabilities of our Navy and our Department, and I know this committee and our country want to share in offering our heartfelt thanks.

This statement, together with those provided by General Dunford and Admiral Greenert, presents to you and to the American people, an overview of the Department of the Navy, and highlights our priorities as we move forward with the fiscal year 2016 budget process. As the Secretary of the Navy, I am responsible for recruiting, training, and equipping the almost 900,000 Sailors, Marines, and civilians who spend every day working to defend the American people and our national interests.

This opportunity to review our current posture comes at a particularly critical juncture in our Nation's history. Our national security interests face an increasing array of threats and demands around the globe, even as our fiscal and budgetary situation grows more challenging. However, this is an opportune moment as well, as I firmly believe the threats and demands are best met with a strong and comprehensive maritime response. Similarly, I believe naval assets offer not only the best value to preserve our national security by advancing our global interests, but

also the best value in supporting our own and the world's economy to help meet our fiscal challenges. The rationale for that belief is as simple as it is enduring.

THE VALUE OF PRESENCE

Uniquely, the United States Navy and the United States Marine Corps provide presence around the globe, around the clock. We are the Nation's first line of defense, ready for any challenge that might come over the horizon. Presence means we respond faster, we remain on station longer, we carry everything we need with us, and we carry out the missions assigned by our national leaders without needing anyone else's permission.

America's leadership role in the world is due in large part to our Nation's sea services capability and capacity to ensure stability, build on our relationships with allies and partners, deter adversaries, prevent wars, and provide our Nation's leaders with options in times of crisis. And, should those measures fail, the combat power necessary to fight and win in any sort of conflict. As America's away team, performing most often far from home, the operational tempo of the Navy and Marine Corps are—unlike our sister services—little different in times of peace or in times of conflict. There are no permanent homecomings for Sailors and Marines because we are never a garrison force.

Born a maritime nation, we have known throughout our 239 years that for America to succeed, we must have an exceptional Navy and Marine Corps. Thomas Paine famously declared in *Common Sense* in 1776 that “the cause of America is in a great measure the cause of all mankind.” He was equally adamant that the defense of liberty required a capable naval force. More than just physical security and defense from European powers, Paine drew direct connections between the Navy and the economic success of the American experiment.

Our Nation's founders, whether northern merchants and lawyers like John Adams or southern planters like Thomas Jefferson, also considered a Navy critical to our Nation's success. Article One of our Constitution grants Congress the power to “raise” an Army when needed, but directs Congress to “provide and maintain a Navy.” Over the past two centuries, American leaders from across the political spectrum have hewed to that Constitutional direction and have, in a nonpartisan fashion, promoted the vital significance of sea power. And over the past two centuries, from Tripoli to Iwo Jima to Tripoli, from the first six frigates to the Great White Fleet to the great fleets of World War II, our Navy and Marine Corps have protected and advanced American interests, stability and freedom around the world.

Today, the value and importance of our naval assets to security and stability here at home and around the world has never been greater. Nearly half the world's population lives less than 60 miles from the sea. With ninety percent of global trade carried by sea, even those who live in landlocked States are dependent on the world's oceans. In these days of an Internet-connected world, 95 percent of all the voice and data goes under the ocean through cables, including the data keeping the world's financial system running.

We live in an age of globalization and worldwide trade. The shelves of stores of every variety are stocked through “just in time” delivery with products from all over the globe. Estimates show that a single major port facility in the U.S. impacts more than a million American jobs and contributes about a billion dollars a day to our Nation's economic productivity. Overall, some 38 million American jobs are directly linked to seaborne international trade.

The security and stability of the international system of trade and finance is tied irrevocably to the free movement of goods and data across and under the sea, and is more than just a military concern. It impacts potentially every American in the prices we pay for goods and services and in the very availability of those goods and services. While it is far away and out of sight to most Americans, our naval presence around the world isn't a theoretical construct.

For seven decades, the United States Navy and Marine Corps have been the primary protector of this international system. There is a sound basis in the proposition that rising international prosperity is directly linked to the United States Navy. We have kept the sea-lanes open. We have kept freedom of navigation open for anybody engaged in peaceful and legitimate trade. As the President has said, we have “been the anchor of global security.”

We benefit from this enormously economically, but we also benefit from the way that shared economic success helps to limit conflict and war. Around the world, high unemployment, stagnant economies, financial struggles often lead to social disorder, political unrest, upheaval, and outright conflict. Maritime instability contributes to these problems, stoking the fires— as can increasing competition for scarce resources. By helping to secure the world's maritime commons, by providing a calming pres-

ence, and by responding to crises early to limit their escalation and enhance diplomatic opportunities, the ability of the U.S. Navy and Marine Corps to be where it matters when it matters is vital to international stability. That is why our national defense strategy is so clearly focused on the maritime domain and requires investment in maritime assets.

AROUND THE GLOBE, AROUND THE CLOCK

The best illustration of the extent and impact of the presence provided by our Nation's sea services can be seen in just a single day of operations. I've chosen July 26th not because it was especially important, but because it was reasonably typical. On that day, I was on a trip around the world, visiting Sailors and Marines and meeting with some of our international partners. In my nearly 6 years as Secretary, I've traveled to 131 countries and territories and traveled nearly one million air miles. I believe I can do my job better by actually seeing and talking with the men and women who serve our Nation where they are serving, and by meeting face-to-face with representatives of other countries, and not just sitting behind a desk in Washington.

My trip last July began in Hawaii, observing activities and operations in the world's largest maritime exercise, Rim of the Pacific (RIMPAC), which included the navies of 22 Nations, including allies from the region, like Japan and Australia and South Korea, but also valued NATO allies like Norway, which sent a warship all the way from the Baltic Sea to join the exercises. For the first time it also involved ships from the People's Republic of China's Navy. During the exercise, these diverse forces worked together on everything from search and rescue and humanitarian missions to practicing counter-piracy tactics and maritime security missions.

As I flew onward to Tokyo to meet with Japanese leaders, an annual exercise, MALABAR, was just beginning in the Indian Ocean. This bilateral U.S.-Indian naval exercise, which has grown in scope and complexity since its first iteration, has fostered mutual understanding with our Indian counterparts and enhanced our ability to operate with one another in a wide range of missions. This year, the Maritime Self-Defense Force from Japan joined the exercise in an important demonstration of multilateral cooperation between Pacific and Indian Ocean nations. The relationship between the nations of the Pacific and the Indian Oceans will continue to be critical in these important maritime regions.

On the same day, in Afghanistan, our Marines were increasing training of Afghan security forces, working toward turning over operational responsibilities to them, as the Marines reduced their direct combat mission. On that day, we had more than 5,000 Marines and Sailors in the country, patrolling, training, and working with our Afghan partners and NATO allies.

At the same time, our Marine Corps Black Sea Rotational Force was involved in PLATINUM LION, a series of exercises with our Romanian, Bulgarian, and Serbian partners, taking place in Bulgaria. Working with these NATO allies and friends from Eastern Europe, this exercise is an important annual event in the Black Sea region to build the capacity and capability of our partners and to promote peace and stability in an area that has been in turmoil for the past several years. Our Marine Corps Black Sea Rotational Force regularly deploys throughout Europe, training with other forces, monitoring security developments, and enhancing our ability to operate with our partners and allies in future contingencies.

On July 26 the U.S. Embassy in Tripoli was evacuated as the fighting in Libya intensified and the State Department decided U.S. personnel were no longer safe at the Mission. The Marines of the Special Purpose Marine Air Ground Task Force-Crisis Response, in support of U.S. Africa Command, helped coordinate the evacuation and escorted the vehicles that carried our diplomatic and military personnel to safety in Tunisia. This kind of operation, reacting to threats and problems as they develop, is the very reason our Navy and Marine Corps are forward deployed, and must be forward deployed to effectively give our leaders options.

On that day about half of our Navy's ships and submarines were at sea, with 99 of our ships forward deployed and another 41 training near our shores. Tens of thousands of Sailors and 36,000 Marines were away from their homes, far from friends and family, forward deployed around the world, serving in both combat and cooperation missions.

That was just one day last July. Each of these exercises on the world's oceans, training events, security cooperation engagements with friends and allies, combat operations in Afghanistan and contingency operations in North Africa, continued to build and strengthen our partnerships and alliances to help protect Americans and secure the global system.

For 365 days per year, the Navy and Marine Corps operate across the planet. When strikes against ISIL targets in Iraq and Syria were ordered, Navy ships and aircraft were quickly in range and launched operations. In fact, for the first 54 days, FA-18s off USS *George H.W. Bush* were the lone strike component. When the President decided to employ military assets to support the fight against Ebola in West Africa, V-22s and Marines from our Special Purpose Marine Air Ground Task Force-Crisis Response were on the ground within hours to provide logistical support to the medical responders.

Our Nation's Defense Strategic Guidance is clearly a maritime-centric strategy focused on the Asia Pacific, on the Arabian Gulf, on building partnerships, all while maintaining our presence around the globe. To fulfill our role in this strategy the Navy and Marine Corps face daily demands ranging from humanitarian assistance and disaster relief, to protecting our embassies, to working with scores of partners and allies, to dealing with multiple asymmetric threats and potential conflicts. The Navy and Marine Corps meet these demands, and many more, using the same people and the same platforms and equipment demonstrating the versatility and flexibility that is the hallmark of this force.

For the past few years we at the Department of the Navy have attempted to minimize the impact of an uncertain budgetary environment, marked by numerous continuing resolutions, the imposition of sequester-level funding and the threat of the return of sequestration. That environment has made it more difficult, but even more critical, to set priorities to make hard choices and to find opportunities to improve our stewardship of taxpayer dollars.

Almost 6 years ago, when I was preparing for my confirmation hearing to be Secretary and began closely examining the challenges our Navy and Marine Corps faced, it became clear to me there are four areas that demand our attention in order to provide and maintain the presence our Navy and Marine Corps uniquely deliver. Those four areas are People, Platforms, Power and Partnerships. Those have been, and continue to be, the key factors in assuring the capability, capacity and success of our naval services, and that is why they have been, and will remain, my top priorities.

People—Our True Advantage

It is one of the great maxims of naval history that Sailors and Marines are the sea services' greatest advantage and most important asset. In the U.S. Navy and Marine Corps, we have the best people in the world. Our Sailors and Marines are well known for the ability to exercise independent judgment, to flexibly adapt to changing circumstances or environments that were unanticipated at the start of a deployment, but for which their training has fully prepared them. Perhaps less well known is how far down the chain of command we devolve critical responsibility. Aboard USS *Ronald Reagan* in the weeks after the earthquake and tsunami that ravaged Japan, I was surrounded by flag officers, but the briefing on relief operations I received came from a Third Class Petty Officer and a Lieutenant Junior Grade because they had been instrumental not just in executing, but also in designing, the effort.

Providing our Sailors, Marines and civilian workforce the training to deal with the uncertainties they will certainly face and providing the support that they need to do their jobs is one of our most important responsibilities. This also extends to helping their dedicated families and ensuring we support our wounded or injured veterans.

Three years ago, we introduced the 21st Century Sailor and Marine Initiative, to provide a more coordinated and comprehensive approach to assuring we have the healthiest, fittest, most resilient, and best educated force in the world. The goal is to help our Sailors and Marines maximize their personal and professional readiness, and to assist them and their families with the mental, physical and emotional challenges of military service. It eliminated the stovepipes that existed between many of the programs designed to support our people and helps us address issues like suicide, sexual assault, and alcohol related incidents in a comprehensive way that protects our Sailors and Marines and makes them stronger. A fleet full of successful Sailors will ensure a successful Navy, and a force full of successful Marines will ensure a successful Marine Corps.

We are looking to expand the initiative by exploring new ways to improve the fitness of our force. We are reassessing our physical fitness requirements to make them more relevant to warfighting and to instill a "culture of fitness" instead of just training for a physical fitness test. This means reviewing nutritional standards, making efforts to reduce stress, and improving healthcare and support networks to deal with issues like suicide and abuse. We are also working hard across these areas to curb the all-too-common factor of alcohol-related incidents, which can end careers

and, tragically, sometimes lives. Available data shows that the number of these damaging incidents has trended downward. To ensure we maintain that trend, we are using media and education campaigns, directed actions against the irresponsible use of alcohol like continuing to place reasonable limits on where and when alcohol is sold on base, and the continued use of the alcohol detection program implemented in 2013.

Sexual assault and harassment remains a challenge that we are responding to aggressively. In the past several years we have taken numerous steps to address it. These include widespread training like our bystander intervention program, increased use of interactive means, victim support programs like the Victim's Legal Counsel, and new investigative resources. Combined with much more direct leadership engagement, evidence suggests that these efforts are improving the confidence of Sailors and Marines in the system and their belief that reports will be taken seriously. Because of this increased trust in their chain of command, we have seen survivors coming forward in larger numbers and also, increasingly, reporting incidents that took place earlier than the year it is being reported. This large increase in reports, especially since 2012 when many programs began to mature, is what we anticipated seeing if our efforts were successful, since they would represent increased confidence in the system. We are turning more attention to the risk of retaliation, especially by peers, as this issue has increased in prominence in our surveys. Our interactive education programs are having a measurable impact, and we will continue to develop and deploy those. Sexual assault is an "insider threat" with devastating impacts on the Navy and Marine Corps. We've done myriad things to attack this insidious threat, but, no matter how much we've done, there is more to do until we've eliminated the scourge of sexual assault.

Vice Admiral James Calvert, who earned two Silver Stars as a submariner in World War II, once wrote that "as important as ships are, naval history is made by men." I would make one change to that statement: today naval history is made by men and women. From the appointment of Admiral Michelle Howard as the Vice Chief of Naval Operations, to our work expanding roles and missions open to women to the maximum extent possible, we are leading the military in our quest to ensure we're using our best and most talented service members across the force. We will continue our efforts to recruit and retain a diverse force, including a more representative number of women. A more diverse force is a stronger force.

For several years now, female officers have had the opportunity to serve on our ballistic and guided-missile submarines, and they have performed exceptionally well, as anticipated, earning their qualifications and opening a new path. We are expanding opportunities for them. USS *Minnesota* and USS *Virginia*, both fast attack submarines, are leading the integration of women into the rest of the submarine force at this moment. In January, the Navy also announced a plan and a set of milestones for fully including enlisted women on submarines that will begin next year.

Women have also been integrated into the Coastal and Riverine Squadrons and have deployed. We have also opened 348 billets for Navy positions that support Marine Corps units. The Marine Corps continues on pace with their study of the positions that are currently closed to women and will have results later this year. In accordance with the Secretary of Defense's guidance, the default position will be that all currently closed positions will be opened to the assignment of women unless an exception is formally requested.

Talent is best cultivated by promoting and advancing our Sailors and Marines on merit and competition. It also requires us to maximize their opportunities to broaden their experience and exposure to new ways of doing things. We have to look at things like moving away from year group management for our officers and expansion of the Career Intermission Program (CIP), as well as other reforms and adjustments within our current system. While a number of our initiatives can be undertaken within our current authorities, there are some that will require adjustments to the law, including changes to the Defense Officer Personnel Management Act (DOPMA), which is almost four decades old. We have made legislative proposals in this area, and we ask for your help in bringing our personnel system into the 21st century.

Maintaining our presence around the world is hard on our force. That is one of the reasons why in 2014 we began the implementation of the Optimized Fleet Response Plan (OFRP). This is a program that Navy is using to schedule and plan our deployments and the maintenance of our platforms. Over the course of the past 13 years of war, one of the biggest challenges for our Sailors and Marines has been predictability in their deployments. The goal of OFRP is to return some amount of scheduling to their lives. Missing holidays, birthdays, and other significant family events is hard enough, but not knowing when it will happen makes things even

more difficult. There is no way to completely eliminate the unexpected. Events around the world can, and do, take on a life of their own, and our men and women know this. Increasing the predictability of deployments will help with the stress on our Sailors and Marines and their families and also has the added benefit of helping us properly support our maintenance requirements and readiness posture.

There will be times when a crisis erupts somewhere in the world and our Sailors and Marines remain deployed in order to deal with it. The world gets a vote. For the past several years we have had a number of ships and units remain at sea far beyond the normal deployment length. In order to help our Sailors and Marines and their families during these extended deployments, we've implemented the Hardship Duty Pay—Tempo (HDP-T) program. When operational tempo is high and a deployment extends beyond more than 220 consecutive days, this pro-rated additional payment kicks in. This is an effort to show our Sailors and Marines we understand the difficulty these extended deployments create for them and their families and to show them, in a tangible way, the gratitude of the Department of the Navy and the American people.

Those Sailors and Marines on sea duty, deployed away from home around the world, are the backbone of the Navy and Marine Corps, and they enable us to provide and maintain our global presence. Despite the challenges involved, we need to ensure our men and women are incentivized to take on sea-going assignments. This past year we increased Career Sea Pay for those who have spent a total of 3 years at sea in order to both improve critical sea-duty manning and reward those who take these challenging sea-going assignments. We also increased Career Sea Pay—Premium, which recognizes Sailors and Marines who spend more than 36 consecutive months in sea-going positions or who have spent a cumulative 8 years at sea during their career. These increases are long overdue since they were last adjusted in 2001.

The Reserve Component continues to be a vital part of the Navy and Marine Corps Team. In fiscal year 2014 we mobilized 2,700 individual Reserve Sailors and Marines to support operations around the world. As the force level shifts in Afghanistan, our Reserve Component will be taking on the vast majority of the individual augment requirements requested by the joint force. This allows us to focus our active component on filling critical sea billets to help ensure fleet wholeness and readiness. Reserve Sailors and Marines are deployed globally, and we will continue to maintain a Reserve that is ready, relevant, and responsive to the Nation's needs.

Attracting and retaining our talent is critical to maintaining our innovative and adaptive force. An important part of that involves the challenge of military compensation. Cooperation between Congress and the Department of Defense on this issue will be vital as we look at slowing the growth rate of our personnel costs. We must keep the faith with the men and women who are in uniform. And we must look for the right ways to build incentives and retain our most talented people. But we also must recognize that growth in pay and benefits must be contained or we will not be able to provide our Sailors and Marines with the training and equipment that they need.

Our civilian workforce is also vital to the success of the Department of the Navy. They help design our ships, aircraft, and equipment and are critical enablers of our forces. Without them, we literally would not have a fleet to put to sea. And we could not operate ashore at our bases across the globe. Over the past few years our civilian workforce has persevered through some very trying times. From pay freezes, to hiring freezes, and the huge, negative impact of furloughs, they have shown an immense amount of dedication to our Navy, Marine Corps, and our Nation. In 2013 twelve of our civilians were killed, and others injured in visible and invisible ways, in the attack on the Washington Navy Yard. There is no more tragic example of how our civilians share the burden with those in uniform. We continue to support the victims and the families who endured this tragic attack and have implemented numerous security measures to improve the safety of our workforce.

This committed and patriotic workforce is the foundation of how the Department of the Navy operates. In order to ensure we have the most capable people, in the right positions, we run a number of leadership development programs. Annually we select participants for senior leader, executive leader, and developing leader programs to provide education and training that will help our people tackle the issues we face.

Platforms—America's Fleet

The hard truth of providing the presence the American people and our Nation's leaders expect is that it requires platforms. To be where we are needed, when we are needed, we must have the ships, submarines, aircraft, vehicles, and equipment

for our Sailors and Marines to operate. That means we must have a properly sized fleet. Quantity has a quality all its own.

Recently much has been said in many venues about the size of our fleet. The completely wrong assertion is made over and over that our fleet is shrinking. Let me state this very clearly: our fleet is growing and will number greater than 300 ships before the end of this decade.

It is absolutely true that our fleet shrank dramatically between 2001 and 2008. On September 11, 2001, the Navy's battle force stood at 316 ships. But, by 2008, after one of the great military buildups in American history, our fleet had declined to 278 ships.

Part of the reason for that was understandable: our focus was on two ground wars. But, frankly, it cannot all be attributed to that. In the 5 years before I took office as Secretary, the Navy only contracted for 27 ships, far too few to maintain the size of the fleet, much less grow it. In my first 5 years as Secretary, we contracted for 70 ships. We have halted and reversed the decline.

And we haven't done this at the cost of naval aviation. During my time in office we have bought 1,300 aircraft. That is 40 percent more than the Navy and Marine Corps bought in the 5 years before this administration took office.

We have done this both in ships and aircraft by taking some direct and basic actions including: block buys and multi-year procurements; increased competition; stable designs and mature technologies; targeted reviews; pursuing cross-program common-equipment buys; and affordability through hard but fair bargaining. In addition, we have: supported shipyard facility improvements and optimal-build plans; conducted rigorous "should cost" studies; designed equipment for affordability and modularity; instituted strict controls to fight "requirements creep;" used open-architecture systems to the maximum extent possible; and signed shipbuilding capability preservation agreements resulting in more competitive shipyards and lower costs for the Navy.

The amphibious and auxiliary ships industrial base is of concern to us and is at risk should future funding levels be reduced. We have recently introduced an integrated acquisition strategy for LHA 8, T-AO(X), and LX(R) to support stability and competition within this sector of the industrial base. The strategy will help ensure the ships are built affordably, while providing the greatest degree of stability for the industrial base.

There are a number of references previously to the industrial base. A healthy design and production industrial base is critical to achieving what is needed for our fleet in ships, aircraft, weapons and all procurements. Stability and predictability are critical to the health and sustainment of this industrial base.

This is especially true in shipbuilding. Changes in ship-build plans are significant because of the long lead time, specialized skills, and extent of integration needed to build military ships. Each ship is a significant fraction of not only the Navy's shipbuilding budget but also industry's workload and regional employment. Consequently, the timing of ship procurements is a critical matter to the health of American shipbuilding industries, and has economic impacts at the local, regional and national levels.

It is important, therefore, to provide stability and predictability to the industrial base to maintain our ability to continue to build the future fleet. In the overall picture, we should not pay for one Navy ship by cutting another Navy ship; each ship is crucial in many, many ways.

The Department's shipbuilding plan continues to build the balanced force we require. This year we have requested funding for nine new ships as well as for the refueling of the carrier USS *George Washington*. We also plan to modernize 11 cruisers, which are our most capable ships for controlling the air defense of a carrier strike group. The Navy's cruiser modernization plan, in accordance with fiscal year 2015 Congressional direction, will allow the Navy to reduce overall funding requirements while most efficiently increasing the capability and extending the service life of these large surface combatants.

Our efforts to maintain and affordably procure our fleet's ships and submarines have continued through this past year. The Department has established a steady state *Ford* Class procurement plan designed to deliver each new ship in close alignment with the *Nimitz* Class ship it replaces. CVN 78 (future USS *Ford*) cost performance has remained stable since 2011 and under the Congressional cost cap. We are also committed to driving down and stabilizing aircraft carrier construction costs for the future *John F. Kennedy* (CVN 79) and the future *Enterprise* (CVN 80) and have made significant progress in doing so. As a result of the lessons learned on CVN 78, we have made significant changes to reduce the cost to build CVN 79, including improvements in material availability and pricing; major changes in build strategy and processes determined to execute construction activities where they can

most efficiently be performed; incorporation of design changes only for safety, those mandated or lower costs; and aggressive measures for cost control in government furnished equipment. The costs of CVN 79 also remain stable and under the Congressional cost cap.

In our attack submarine program we are continuing procurement of two *Virginia* Class submarines per year while reducing construction time and also developing the Virginia Payload Module (VPM). Thanks to the support of Congress in authorizing the use of a multi-year procurement (MYP), in April 2014, the Navy awarded the Block IV contract for ten submarines. The savings realized with this MYP contract was more than \$2 billion, effectively giving the Navy ten ships for the price of nine.

SSBNs, coupled with the Trident II D-5 Strategic Weapons System, represent the most survivable leg of the Nation's strategic arsenal and provide the Nation's only assured nuclear response capability. Originally designed for a 30-year service life, the *Ohio* Class has been extended to 42 years of operation. They cannot be extended further. For this reason, we are intensively continuing development of the follow-on twelve-submarine Ohio Replacement Program (ORP). This effort is driven by meeting the program's performance requirements while reducing costs across design, production, operations and sustainment. However, in order to afford the ORP procurement costs beyond this Future Years Defense Program (FYDP) it is clear that this program must be funded by a significant increase in the Navy's shipbuilding budget, or from other sources. Otherwise, funding this necessary program will effectively keep the Navy from performing its other critical missions.

The *Arleigh Burke* Class (DDG 51) program remains one of the Navy's most successful shipbuilding programs—62 of these ships are currently operating in the fleet. We are in the third year of an MYP. The second of our fiscal year 2016 ships will provide significant upgrades to integrated air and missile defense and additional ballistic missile defense capability by introducing the next flight (Flight III), which incorporates the Air and Missile Defense Radar (AMDR) designed to address a number of growing threats.

With four Littoral Combat Ships (LCS) in service, operational experience continues to increase through at-sea testing and rotational deployments, and the value of this class continues to be demonstrated. USS *Fort Worth* began her maiden deployment to the western Pacific, and upon arrival in Singapore was sent to assist in the search and recovery efforts for the downed Air Asia airliner in the Java Sea. USS *Fort Worth's* deployment marks the beginning of continuous LCS forward presence in Southeast Asia and will validate the 3:2:1 (three crews, two ships, one ship always forward-deployed) rotational manning and crewing concept for the LCS class. This will also be the first deployment of the Navy's MH-60R Seahawk helicopter along with the MQ-8B Fire Scout on an LCS.

After an exhaustive analysis by the Navy's Small Surface Combatant Task Force, in December 2014 the Secretary of Defense approved the Navy's proposal to procure a new small surface combatant based on an upgraded LCS. This followed his February guidance to review the program and consider development of a more lethal and survivable small surface combatant. The upgraded LCS will provide multi-mission anti-surface warfare and anti-submarine capabilities, as well as continuous and effective air, surface and underwater self-defense. They are both more lethal and more survivable, as well as continuing to be affordable and providing the fleet with the requirements it needs. As these capabilities are consistent with those of a frigate, I directed designation of these new small surface combatants as Frigates (FF).

Our amphibious ships are incredibly versatile. Across the spectrum of maritime operations, from the humanitarian assistance and disaster relief efforts in the Philippines following super-typhoon Haiyan to the combat operations in Libya during Operation ODYSSEY DAWN, the Navy and Marine Corps team do a wide array of things with these ships. At this moment, the USS *Iwo Jima* Amphibious Ready Group and 24th Marine Expeditionary Unit are in the Fifth Fleet area of operations, ready for anything that might happen from Iraq and Syria to Yemen.

Congress provided \$1 billion of funding in the fiscal year 2015 Appropriations Act toward a twelfth LPD, and we have requested the balance of funding this year for this ship, LPD 28. Procurement of LPD 28 will assist in mitigating impacts to shipbuilding and combat systems industrial bases, and the ship's design and construction features will fully exploit some of the ongoing design innovations and cost reduction initiatives that are necessary for the LX(R) to achieve its affordability goals.

Support vessels such as the Mobile Landing Platform (MLP) and the Joint High Speed Vessel (JHSV) provide many additional options and flexibility to Combatant Commanders. The future USNS *Lewis B. Puller* (MLP 3), the first Afloat Forward Staging Base (AFSB) variant of the MLP, which includes a flight deck, was christened in early February in San Diego and will deliver in summer 2015. The Navy awarded MLP 4 AFSB in December 2014, and plans to request MLP 5 AFSB in fis-

cal year 2017. JHSV production continues with delivery of the fifth JHSV anticipated in April 2015. JHSVs 6 through 10 are also under contract. In fiscal year 2015, Congress provided funding for an eleventh JHSV, which we expect to be put under contract this coming summer.

Combat Logistics Support ships fulfill the vital role of providing underway replenishment of fuel, food, repair parts, ammunition and equipment to forward deployed ships and embarked aircraft to enable them to operate at sea for extended periods of time. We will begin to replace the Fleet Replenishment Oilers beginning in fiscal year 2016 with the TAO (X). These will be double-hulled and meet Oil Pollution Act of 1990 and International Marine Pollution Regulations.

With the strong support of Congress, we continue to strengthen naval aviation as well. Adding new aircraft to our growing fleet will increase U.S. naval strength, in terms of both force capacity and capability. In the vertical lift community, multi-year production contracts for the MV-22 and MH-60R continue, as does the Marine Corps procurements of the AH-1Z and UH-1Y.

The E-2D, our new and upgraded electronic early-warning aircraft, reached initial operating capability in October and is continuing production under a multi-year contract. We continue to buy P-8As to replace the venerable P-3. Last year, in 2014, we saw the first deployment of this aircraft and continuous rotational deployments to Seventh Fleet are now underway. This past year also continued the integration of the EA-18G Growler electronic attack aircraft into the fleet. With Congress's addition of 15 Growlers in 2015, we will have 153 of these aircraft in 16 squadrons. With the final Navy deployment of the legacy EA-6B Prowler, and the looming retirement of the Marine Corps' last Prowlers, these incredibly capable new aircraft take over the Nation's airborne electronic attack mission.

The F-35 Joint Strike Fighter remains a central part of the future of both Navy and Marine Corps aviation. This past year we saw the Marine Corps begin F-35B operations at two additional bases. The Marines are on track to have initial operating capability (IOC) for the first squadron this year. The Navy completed the F-35C's first flight operations at sea aboard USS *Nimitz* (CVN 68). According to plan, the Navy is the last service to acquire the F-35 and is continuing an acquisition strategy to achieve IOC in the 2018–2019 timeframe. Incentive agreements with the builders have been achieved that will improve aircraft unit costs while also improving the learning curve on production.

Unmanned systems are critical to our ability to be present; they lessen the risk to our Sailors and Marines and allow us to conduct missions that are longer, go farther, and take us beyond the physical limits of pilots and crews. Launching and recovering unmanned aircraft as large and capable as our manned fighters from the rolling decks of aircraft carriers, launching unmanned rotary-wing patrols from our small surface combatants, and deployment of unmanned underwater vehicles globally are elements of both the present and future of maritime presence and naval warfare.

We are moving ahead with a number of unmanned programs in the effort to rapidly integrate them into the fleet. The MQ-8B Fire Scout has already begun regular deployments. When USS *Fort Worth* deployed to Singapore recently the ship took a mixed aviation detachment of a manned MH-60R helicopter and MQ-8B UAV's. This kind of hybrid employment, pairing our manned and unmanned systems to take advantage of the strengths of each, will be a hallmark of our future approach to unmanned systems. The first operational variant of the larger and more capable next generation Fire Scout, the MQ-8C, was delivered in 2014. This aircraft will bring double the endurance and double the payload of the older versions.

We continue to work toward a full start of the Unmanned Carrier Launched Airborne Surveillance and Strike system (UCLASS) program. This unmanned addition to the air wings aboard our aircraft carriers is a vital part of the future of naval aviation. Full start of this program has been delayed pending a defense-wide review. Having the proper balance of long-endurance surveillance capabilities and the ability to grow into long range, penetrating strike missions in the future is critical. Development also continues of the unmanned underwater systems that are part of our future mine warfare capabilities. These systems will see formal operational testing in the Littoral Combat Ship program in 2016.

Maintaining the required pace of Navy shipbuilding while continuing the recapitalization of our aviation assets and other platforms made necessary by our deployment cycles and operational tempo is a very real issue. It will necessitate continued leadership, oversight and management to make sure we develop innovative solutions and maximize the efficiency in our acquisition system. Building our platforms is a unique public-private partnership and a key economic engine in nearly every State in the union. It provides more than 100,000 high-skill, high-paying jobs and

helps ensure the foundation of global prosperity and security that our naval presence has assured since World War II.

Because cuts to our shipbuilding programs are the least reversible in their impact on our fundamental mission of providing presence and in their consequences to the industrial base and to our economy, I am committed, to the maximum extent possible, to preserve ship construction and to seek reductions in every other area first, should further budget reductions such as sequestration become reality.

Power—Energy and Efficiency

For two centuries the United States Navy has had a history of leadership in energy innovation, transitioning from wind to coal, coal to oil and finally pioneering nuclear power. Fueling the ships, aircraft, and vehicles of our Navy and Marine Corps is a vital operational concern and enables the global presence necessary to keep the Nation secure. But power and energy are also issues of national and international security.

My responsibility as Secretary of the Navy is to ensure that the Navy and Marine Corps have the right people, with the right training and the right tools to defend our country. Power and energy are an important part of ensuring our people have what they need and can get where they are needed. It is a critical element of our presence and why Navy has always been an energy innovator.

Throughout human history, access to resources has been a major source of conflict. Energy and fuel can and are being used as weapons. Threats against the shipping lanes in the Middle East, European dependence on Russian gas supplies and the impact of Russian energy dependence by the Ukraine are the subject of daily headlines. This is true regardless of the price of a barrel of oil, although the price decline of the last year has certainly impacted strategic calculations around the globe.

Here in the United States, with domestic production up and new oil and gas reserves being discovered even as prices have fallen, energy still remains a security concern. Even if we were able to produce every single drop of oil or gas that America needs domestically, we cannot control the price. Oil is the ultimate global commodity, often traded on world markets based on speculation and rumor. Oil price instability is often the result of global instability, and prices fluctuate with little warning. The volatility of oil prices, both up and down, has been repeatedly demonstrated in recent years. And energy supply will remain an issue for many of our allies and for others around the globe, creating the potential for instability and even conflict.

Operationally, energy matters now more than ever. The ships and aircraft that we deploy include advanced capabilities that make us the most effective expeditionary fighting force in the world. But our weapons platforms also use far more energy than their predecessors. Our ability to maximize our capabilities depends on having the energy available to power them.

In 2009, I established formal energy goals for the Department of the Navy to help drive the Navy and Marine Corps to strengthen our combat effectiveness by using energy more efficiently and by diversifying our sources of power. From the deployment of hybrid electric drives, to the introduction of alternative fuels into the fleet, to the Marines' use of expeditionary power systems in Afghanistan, we have made real progress over the last few years.

This past year we christened USS *Zumwalt* (DDG 1000), which has an electric propulsion system. This system is state-of-the-art and will significantly reduce fuel demand, which is a critical part of ensuring we have the fuel to power next generation weapons, like the Laser Weapon System (LaWS) and the electro-magnetic rail gun. This past fall we commissioned USS *America* (LHA 6) which is driven by hybrid electric power plants. This is the same engineering design used in USS *Makin Island* (LHD 8) that, for her maiden deployment, cut her fuel consumption nearly in half when compared to other big deck amphibious ships. We also took delivery of two more *Virginia* Class submarines, with their advanced nuclear power systems that lead the world in efficiency and safety.

Our shore installations, like our shipyards, are critical to our operations. We continuously strive to be smarter and improve energy efficiency at our installations. And we are leveraging private sector funding to accomplish that goal. In fact, the Department of the Navy is on track to have awarded nearly one billion dollars in energy savings performance contracts by December 2016. That's one billion dollars to improve our infrastructure and lower our energy bills in the process. The Renewable Energy Program Office (REPO) coordinates and manages our goal of producing or procuring one gigawatt of cost-effective renewable energy for our bases. We will reach this goal by December of this year. The power we are buying through our REPO projects will be cheaper, over the life of the contract, than our current rates.

Last September we announced contracts with three companies that have committed to produce drop-in, military-compatible biofuels at operational quantities. Let me be clear: we are not obligated to buy fuel from any producer and do not intend to buy any fuels unless they are cost competitive. That said, it is critical we continue to use alternative fuels in our ships and aircraft to ensure operational flexibility. The private sector, including major airlines, is expanding the use of alternative fuels just as we are.

Diversifying our energy supply for our ships, our aircraft, and our bases helps guarantee our presence and ability to respond to any crisis. Increasing our energy efficiency assures that we can remain on station longer or extend our range, without the delays and vulnerability of refueling. And the benefits of competition, as we have demonstrated in shipbuilding, are always welcome. In these ways, our focus on power and energy is helping to ensure the United States Navy and Marine Corps remain the most powerful expeditionary fighting force in the world and their ability to protect and advance American interests around the globe.

Partnerships—Naval Diplomacy and International Cooperation

In the 21st century, to be effective, all nations and people that seek freedom and security have to carry their own share of the responsibility of defending the global system. A collective effort will assure our navies can provide the necessary presence to maintain freedom of navigation and maritime security around the world. Whether blue water or brown, America's Navy and our other allies and partners help assure stability and security, creating and strengthening global relationships, providing humanitarian assistance and disaster relief, deterring adversaries when possible, and defeating aggression when necessary.

Cooperation on the world's oceans helps us diffuse tensions, reduce misunderstandings, and limit conflict. The world's maritime tradition is nearly as old as human history. From harbors near the Arctic Circle and around the Mediterranean, from the littorals of Asia to the shores of Africa, the Americas and Australia, human civilizations have launched one great fleet after another toward the horizon. Again and again naval forces have proven themselves the most immediate, the most capable and the most adaptable option when a crisis develops.

This is even more true when like-minded navies, with similar national policy objectives, can find ways to work together. Whether exercising together in the Baltic or in Southeast Asia, operating against pirates in the Gulf of Aden, or cooperating to provide relief in the aftermath of natural disasters, the strong cooperation between the United States and our partners and allies makes a difference all over the globe. Partnerships are a key contributor to presence.

Building partnerships and establishing trust between our Nation and our Navy and countries around the world is why I travel to visit with foreign military and governmental leaders. Those meetings are critical to building the relationships that can help us deter conflict or respond in a more coordinated and effective manner to manmade or natural crises. It is critical in my job as Secretary of the Navy to understand the global landscape and the security challenges—and opportunities. Briefings and PowerPoint slides can never match the value of firsthand observation and interactions, as anyone who has served aboard a ship, at a forward outpost, or in a warzone can tell you. As the old Navy saying goes, "You can surge people and you can surge platforms, but you cannot surge trust."

Our rebalance to the Pacific continues to be an important part of our partnership efforts. We must have the right platforms in the right places to ensure our friends and allies understand our commitment. We're moving more ships to the central and western Pacific, including forward basing an additional fast attack submarine in Guam and as I mentioned earlier we are forward stationing four Littoral Combat Ships out of Singapore. We are ensuring that our most advanced platforms are in the Pacific, so we're increasing the number of DDG's with the Ballistic Missile Defense systems based in Japan and the P-8A maritime patrol aircraft are making their first rotational deployments in the region. In the longer term, by 2018 we will deploy an additional Amphibious Ready Group to the Indo-Pacific region and we will deploy a growing number of Joint High Speed Vessels and Mobile Landing Platforms there. With these changes, and others, by the end of the decade 60 percent of our fleet will be based in the Pacific, a fleet which will be larger than the one we have today.

The Marine Corps is also building its capacity to work with our Indo-Pacific partners. We continue to increase the rotational deployment of Marines to Australia, which will culminate in the regular rotational deployment of a Marine Air Ground Task Force (MAGTF) of approximately 2,500 Marines. The Marines have increased the size of this deployment from just over 200 Marines to more than 1,000 and over the past year these Marines out of Darwin have conducted exercises and theater se-

curity operations throughout the region. We are also continuing forward on the plan to base another MAGTF (part rotational, part permanent) of about 5,000 Marines in Guam, which will become a central hub for many of our Pacific operations.

This past year saw dramatic developments in Eastern Europe and the Black Sea region. The Navy and Marine Corps have been central to demonstrating support for our allies and friends and American interests in the region. Alongside the Marine Corps' Black Sea Rotational Force's operations in Eastern Europe, a series of Navy ships have deployed into the Black Sea to ensure freedom of navigation and work with our partners there. The bonds between America and Europe and our shared values remain as strong today as ever.

That is demonstrated in one of the world's strongest and most enduring defense partnerships: the North Atlantic Treaty Organization. It is true that America's defense strategy calls for an increased focus on the Western Pacific, Arabian Gulf, and Indian Oceans. But that same strategy also ensures that we aren't turning away from our longstanding allies in Europe and also calls for renewing our commitment to NATO. A very concrete example of this is the move of four ballistic missile defense capable DDGs to Rota, Spain. All of these efforts are a continuation of NATO's 65-year mission to keep all nations free, and not to claim territory or tribute.

This past summer USS *America* sailed from the Gulf Coast, where it was built in Mississippi, around South America to its new homeport in San Diego. As *America* sailed through the Americas, the Sailors and Marines aboard conducted theater security cooperation activities with countries in the region, training together and helping to develop the skills needed to counter illicit trafficking and conduct combined operations. Our new Joint High Speed Vessels are also deploying to the Americas with the ability to operate for longer periods and carry adaptive payloads. Our security is undeniably tied to our neighbors and we are working with innovative and small-footprint approaches to enhance this.

This past September, I invited the leaders of our partner navies in West Africa to join me for a series of discussions in Newport, Rhode Island called the Gulf of Guinea Maritime Security Dialogue. Naval leaders from 16 nations bordering the Gulf of Guinea came to discuss how we could increase collaboration in a region where piracy, extremism, trafficking and insecurity of all types are on the rise. We discussed a unified code of conduct for maritime law enforcement and encouraged more direct cooperation in the region. As the economy in the Gulf of Guinea continues to grow, so does the increasing relevance of guarding against transnational crime like maritime terrorism and the illegal movement of drugs and weapons. The U.S. Navy and Marine Corps will continue to work with our partners in West Africa and help them improve their capabilities and promote collaboration.

Sailors and marines of every nation have much in common with other sailors and marines. Working together, we become more inter-operable, we can provide key training and develop the operational capabilities of like-minded countries and navies. This in itself increases stability for the global system. It distributes the burdens and costs of maritime security and makes us all safer by reducing the likelihood of conflict. Direct engagement with foreign leaders by our Department's senior leadership is a central component of building the human connections that are critical to successful partnership and combined operations. They are a large part of what builds the international relationships, trust, and inter-operability that is central to our globalized world.

In this interconnected world, threats know no boundary, no international lines, so the burden of security has to be shared. Across 239 years of history our Navy and Marine Corps have worked with allies and friends. From suppressing the slave trade on the coast of Africa in the mid-19th century to the combined operations of World War II, the examples are endless. From the exercises I mentioned earlier like RIMPAC, MALABAR, and PLATINUM LION, to our multi-lateral and bi-lateral meetings with both uniformed and government leaders, to our combined operations like the search for Air Asia Flight 8501 and counter-piracy patrols off the Horn of Africa; these examples illustrate that the partnerships we build and maintain today remain critical to our global presence.

FISCAL YEAR 2016 BUDGET SUBMISSION

The Department of the Navy's proposed budget for fiscal year 2016 is designed with a focus on the three objectives laid out 2014 Quadrennial Defense Review: protect the homeland, build security globally, and project power and win decisively when called upon. In doing so we have looked across the FYDP to maintain our ability to conduct the ten primary missions listed in the Defense Strategic Guidance to 2020 and beyond. Overall the fiscal year 2016 President's Budget balances current

readiness needed to execute assigned missions while sustaining a highly capable fleet, all within a tough fiscal climate.

Our approach to this budget has focused on six objectives. First, maintain a credible and modern sea-based strategic deterrent. Second, sustain our forward global presence to ensure our ability to impact world events. Third, preserve both the capability and capacity to defeat an aggressor in one multi-phase contingency operation while simultaneously denying another aggressor the ability to achieve their objectives. Fourth, ensure that the force is adequately ready for these operations through critical afloat and shore readiness and personnel issues. Fifth, continue and affordably enhance our asymmetric capabilities. Finally, sustain our industrial base to ensure our future capabilities, particularly in shipbuilding.

Even as we deal with today's fiscal limitations, we cannot let slip away the progress we've made in shipbuilding. It takes a long time, measured in years, to produce a deployable ship. As I noted earlier, it is the least reversible thing we might do to deal with budget constraints. If we miss a year, if we cancel a ship, it is almost impossible to recover those ships because of the time involved and the fragile industrial base. To do the job America and our leaders expect and demand of us, we have to have those gray hulls on the horizon.

This budget results in a 2020 fleet of 304 ships. We will purchase *Virginia* Class attack submarines at a rate of 2 per year for a total of ten across the FYDP, with the inclusion of the Virginia Payload Module by fiscal year 2019 for at least one boat per year. We also will continue to procure *Arleigh Burke* class destroyers at a rate of 2 per year, with the first Flight III DDG funded in fiscal year 2016 and delivered in fiscal year 2021. Fourteen ships of the Littoral Combat Ship class, of which at least the last five will be the frigate variant, will also be procured in this FYDP. We will also continue the construction of amphibious ships, mobile landing platforms, high speed vessels, and combat logistics ships.

This budget carries on the development of the future carrier air wing. Procurement of both the F-35C and F-35B continues, with initial operating capability (IOC) of the F-35C coming sometime in late fiscal year 2018 or early fiscal year 2019. Our multi-year procurement of the E-2D will now include the introduction of inflight refueling capability for the new aircraft. We are continuing the integration and procurement of the Small Diameter Bomb II for the F/A-18 and fund advancements to the Advanced Anti-Radiation Guided Missile to reach IOC for Block I in fiscal year 2017. The budget also funds the EA-18G into its Full Operating Capability and full air wing integration in fiscal year 2017, and we continue the development of the Next Generation Jammer.

We are accelerating the purchase of P-8A maritime patrol aircraft to reverse the reductions that were made due to sequester cuts. Our plan is to complete the buy in fiscal year 2019 and have the entire inventory of 109 aircraft by the end of the FYDP. We are also addressing the future of our logistics support and carrier on-board-delivery aircraft. This budget funds the purchase of 24 Navy V-22 Tiltrotor aircraft across the FYDP, with an IOC for Navy squadrons of fiscal year 2021.

In order to face potential adversaries who are building technologically advanced platforms and weapons of their own, we must move forward on our development of new and innovative systems. This budget funds the accelerated acquisition of the Long Range Anti-Ship Missile (LRASM), which will reach early operating capability on the B-1 in fiscal year 2018 and with F/A-18's in fiscal year 2019. We are also continuing procurement of SM-6 missiles. Funding for the next leap forward in weapons technologies, such as the LaWS and railgun programs, are included as well as the precision-guided Hyper-Velocity Projectile (HVP) for both our 5-inch guns (by fiscal year 2019) and for the railgun once development is complete.

The fiscal year 2016 budget also places priority on emerging capabilities in the cyber and electronic warfare efforts. We will continue to recruit and train top talent to form 40 cyber mission teams by the end of 2016. We also include funding for Operation Rolling Tide and the results of Task Force Cyber Awakening, which invests in enhancements to our networks for cyber defense-in-depth, including defense solutions for ships, security improvements for our command and control networks, and the expansion of some of our defense initiatives to tactical IT systems. The Navy is developing capabilities to deliver cyber effects from land and sea-based platforms. We are continuing the build of the Mobile User Objective System (MUOS) satellites with an IOC expected in fiscal year 2016 and the launch of the fifth satellite in late 2016.

The Marine Corps end strength will hold at 184,000 Marines for 2016 while leadership assesses the impact of the drawdown that has been conducted over the past 4 years. This pause is for 1 year only. The Marines will draw down to 182,100 under this budget in 2017. After coming down by 18,000 Marines, we need to ensure we have the right number of small unit leaders and their ability to prepare their Ma-

rines for deployment. We must also make sure that units preparing for overseas operations have adequate time and ability to train and to maintain unit cohesion.

The Marine Corps will begin procurement and testing of the next generation ground combat maneuver capability, starting with the Joint Light Tactical Vehicle. We will also award engineering manufacturing and development contracts to two vendors to produce Amphibious Combat Vehicle 1.1 prototypes for testing and evaluations. The F-35B program also remains a high priority for the Marine Corps, and this budget ramps up production of airframes with the plan to stand up a third F-35B squadron by fiscal year 2018. These programs are important to our ability to maintain the Marine Corps as the Nation's expeditionary force-in-readiness. Our ability to remain forward engaged and ready to respond to crisis is dependent on the readiness of our forward deployed and home station units. The Marine Corps must remain the most ready when the Nation is least ready.

Our support for our Sailors and Marines and their families is evident in the personnel initiatives in this budget, many of which were described earlier. We are continuing the Compensation Reform and Quality of Service initiatives that we first proposed in the budget for fiscal year 2015. This includes increasing our requested pay raise from 1.0 percent to 1.3 percent in fiscal year 2016. To ensure fairness across the force, this budget also makes certain that every active duty family member has the option to receive healthcare with no co-pays/cost share regardless of their assigned duty station, including remote locations. The re-investment in our talented and innovative workforce also continues from the fiscal year 2015 budget to this one, including the new sea duty incentive pays and bonuses, barracks improvements for our junior personnel, and improved fleet training and spares availability to ensure our men and women have the tools they need to get their jobs done.

The American people have every right to expect that after coming out of two wars there would be savings in the defense budget. Our Department is continuing its reform of acquisition practices, including fundamental changes to how we contract for services. We are establishing additional discipline in the contractual services process—from requirements to tracking to execution to surveillance—that ensures the integrity of the system remains high and to guard against fraud. Also, as a result of reformed contracting processes, we fully expect in this budget to achieve the reductions in contractual services that we began in last year, realigning those resources to buying more material equipment and readiness for the force.

We continue to aggressively implement acquisition practices that improve the return for each taxpayer dollar we spend. Improved management of requirements, multiyear procurements, appropriate incentive contracts, additional competitions, and small business initiatives are but a few of the tools we are using to maximize the return on each dollar we invest on behalf of the taxpayer. However, the way some of the budget reductions have been executed in the law, through continuing resolutions and the sequester, have made planning virtually impossible and have not allowed us to approach reductions in a strategic way. After the initial return of a moderate amount of stability following last year's Bipartisan Budget Act and the recent Omnibus Spending Bill, the President's Budget for fiscal year 2016 continues this stability to the Department's planning for the future. In order to maintain our Constitutional responsibility to "provide for and maintain a Navy," we must work together to ensure that our Navy and Marine Corps remain the most powerful expeditionary fighting force in the world.

Over the past 3 years the Navy and Marine Corps have had to make tough choices across a wide range of competing priorities in order to deal with funding instability. This proposed budget submission for fiscal year 2016 maintains the minimums necessary to accomplish the missions required by the DSG. We continue to accept some risk to our capacity to complete all ten of the missions, and we have continued reductions to the maintenance funds for our shore infrastructure, elements of our weapons capacity, and selected aviation accounts. While these reductions were seen as the most reversible, over a longer period of time the expenses have continued to add up. Because we have already taken these savings, a return to the funding level required by the 2011 Budget Control Act certainly will have more dramatic impacts.

CONCLUSION

In 2015 we commemorate the bicentennial of the end of the War of 1812. At the Battle of New Orleans a joint force of Sailors, Marines, Soldiers, and volunteers repelled a veteran British Army, battle hardened by their war against Napoleon. From the Navy's small combatants and gunboats that attacked the landing force in Lake Borgne, to the gunnery crews who joined the Army's artillery on the field of battle

at Chalmette Plantation, Sailors and Marines ensured the defense of our homeland against invasion. Only weeks later off the coast of Africa, Captain Charles Stewart and USS *Constitution* fought the war's final battle at sea, bringing an end to the conflict that established the U.S. Navy as a player on the world's stage.

When America has called, the Navy and Marine Corps have always been there. Two hundred years ago our squadrons sailed for the shores of Africa and the Second Barbary War, having just concluded that decisive role in the War of 1812. One hundred and fifty years ago, Admiral Farragut sailed up through Mobile Bay during the Civil War. One hundred years ago, as the First World War began, we prepared for convoy operations and anti-submarine missions in the battle for control of the Atlantic. Seventy years ago, Sailors and Marines fought their way across the Pacific toward Japan. For all of those two hundred plus years, and continuing today, the Navy and Marine Corps have been ready to fight and to win our Nation's wars, whether coming from the sea or on, above or beneath the sea.

Today, from the coast of Africa to the wide expanse of the Pacific, from the Arctic to the Antarctic, our Sailors and Marines continue to deploy to protect and defend the American people and our national interests. They, and our Navy and Marine Corps civilians, continue to ensure that America's Away Team is ready and present around the world, prepared for action in times of crisis or working with our partners in times of peace.

The United States of America faces an international security environment full of uncertainty. To face that world, the funding levels in the Department of the Navy's proposed budget for fiscal year 2016 reflect the resources required to rapidly respond to a diverse scope of contingencies spanning extremist organizations, pandemic diseases and natural disasters, while continuing to deter assertive actors across the globe through our expeditionary presence and dominant warfighting capability. These investments will continue to provide the best value in dealing with that dynamic security environment, as well as securing and strengthening our own and the global economy.

In order to ensure that we continue to provide the Navy and Marine Corps our Nation's leaders the American people have come to expect, the Commandant and Chief of Naval Operations and I look forward to working with this Committee and the Congress. From maintaining our momentum on our plan to build to a fleet of 304 by the end of the decade, to our continued efforts to purchase the aircraft, vehicles and weapons detailed in our budget submission, to the priority of ensuring we maintain and retain the talented Sailors, Marines, and civilians who make it all possible, we will need to work together. We look forward to answering your questions, at this hearing and in the future. We will continue to work to provide for, and maintain, our Navy and Marine Corps because, as President Theodore Roosevelt once said, "A good Navy is not a provocation to war. It is the surest guaranty of peace."

Senator COCHRAN. Thank you, Mr. Secretary.

Admiral Greenert, we will recognize you now for any opening statement you would have to make.

STATEMENT OF ADMIRAL JONATHAN W. GREENERT, CHIEF OF NAVAL OPERATIONS

Admiral GREENERT. Thank you, Chairman Cochran, and distinguished members of the committee. I appreciate the opportunity to testify today.

It is my honor to serve and represent more than 600,000 Active and Reserve sailors, Navy civilians, and their families, especially the 41,000 sailors who are underway and deployed around the globe today. The dedication and resilience of our people continues to amaze me, Mr. Chairman. The citizens of this Nation can take great pride in the daily contributions of their sons and daughters around the world.

It is also my pleasure to testify this morning beside Secretary Mabus and General Joe Dunford. Your Navy and Marine Corps team is united in fulfilling our longstanding mandate to be where it matters, when it matters, ready to respond to crises to ensure the security that underpins the global economy.

Now to that point, recent events exemplify the value of forward-presence. For example, last August, the *George Herbert Walker Bush* carrier strike group relocated from the Arabian Sea to the North Arabian Gulf. That is about 750 nautical miles. It is like going from Jackson, Mississippi, to Chicago, just for perspective.

They did that in under 30 hours. And when located there, they were doing sorties, that is missions, 20 to 30 a day, and they did that for 54 days, at which they were the only coalition strike option to project power. So that is pretty good.

The USS *Truxtun* arrived in the Black Sea to establish a U.S. presence and to reassure our allies only a week after Russia invaded Crimea. Most of that week was getting the paperwork done to get and locate ourselves in the Black Sea.

The *Fort Worth*, a littoral combat ship (LCS), and the USS *Sampson*, a destroyer, were among the first to support the Indonesian-led search effort for the Air Asia Flight 8501 in the Java Sea here last December.

So we have been where it matters, when it matters.

Mr. Chairman, I have testified before about the continuing resolution and sequestration, and it has deeply affected our Navy's readiness and capabilities, and we have not yet recovered from that 2013 period.

Navy readiness is at its lowest point in many years. The budget reductions have forced us to cut afloat and ashore operations. It has generated a ship and aircraft maintenance backlog. And it has compelled us to extend unit deployments.

Now, since 2013, many of our ships have been on deployment for 8 to 10 months or longer. That really does exact a cost on the resiliency of the people and the service lives of the ships themselves. Our degraded readiness posture has also affected our ability to satisfy contingency response requirements.

Now, in addition to what is globally deployed today, our combatant commanders require three carrier strike groups and three amphibious ready groups ready to deploy within 30 days to respond to a major crisis. That is our covenant with them.

However, on average, we have been able to keep only one carrier strike group and one amphibious ready group in this readiness posture. So we are at one-third of the requirement.

Now, assuming the best case of an on-time, an adequate, and a stable budget, and no major contingencies, we might be able to recover from this accumulated backlog by 2018 for our carrier strike groups, and by 2020 for our amphibious ready groups. So that is 5 years after the first round of sequestration.

That is just a glimpse of the damage that sequestration can and will do, if we go back there. Not only do we face several readiness problems, but we have been forced to slow Navy modernization.

Mr. Chairman, we have lost our momentum in rapidly fielding emerging capabilities for future fights. We are losing our technical edge. The overall impact of budget shortfalls in the past 3 years has manifested in the continuing decline of our relative warfighting advantage in several areas, notably antisurface warfare, antisubmarine warfare, air-to-air warfare, and what we call the integrated air-and-missile defense.

We have been compelled to accept significant risk in the execution of two key missions in the 2012 Defense Strategic Guidance. That remains our guidance. And I provided a little card here which lists the missions we are required to provide, where we are in President's budget 2016, and where we will be if we go to sequestration.

The first mission where we have great risk in 2016 is to deter and defeat aggression. That means to win a war at sea by deterring another at sea in a different theater.

The second mission is to project power despite an anti-access/area denial challenge.

Now when I say risk in this context, I mean that some of our platforms and our people and our systems will arrive late to the fight. They will arrive with insufficient ordnance, without superior combat systems, without superior sensors and the networks that they need. They will be inadequately prepared to fight, and that means a longer timeline to arrive and to prevail. More ships and aircraft will be out of action in battle. And, frankly, more sailors and marines and merchant mariners will be killed. And it's less credibility and, frankly, less deterrence for our adversaries, and less assurance for our allies, in the future.

Now, given these circumstances, our President's budget 2016 submission represents the absolute minimum funding levels that we need to execute our strategic guidance. To bring the Navy program into balance within this fiscal guidance, we focused first on building the appropriate capability, and then we deliver whatever the capacity we could afford based on the funding that we have.

Now, that is similar to last year. We applied the following six priorities in preparing our program. Number one, we have to maintain a safe and credible sea-based strategic deterrent. Number two, we must sustain our forward presence. We have to be where it matters, when it matters. Three, we will develop the capability and the affordable capacity we have to win decisively. Number four, improve our weapon readiness. Number five, to develop the asymmetric capabilities to keep us technologically advanced. And number six, to sustain a relevant industrial base.

Now, I list the industrial base as number six, but that is not the last priority. We have to balance all of those throughout this.

Senator COCHRAN. Admiral Greenert, we are going to have to ask you to wind up your remarks. You have taken more time than either the Secretary or I have taken.

Admiral GREENERT. I will do that now.

PREPARED STATEMENT

So in conclusion, Mr. Chairman, over the last 3 years, we have been provided \$25 billion less than the President's budget. Frankly, if we continue down that track, we will be \$55 billion out.

The budget request represents the floor, and any funding level below this submission will require revision to our strategy.

I look forward to working with the Congress to find solutions. Thank you.

[The statement follows:]

PREPARED STATEMENT OF ADMIRAL JONATHAN W. GREENERT

INTRODUCTION

Chairman Cochran, Vice Chairman Durbin, and distinguished members of the Committee, I am honored to represent more than 600,000 active and reserve Sailors, Navy Civilians, and their Families, especially the 41,000 Sailors who are underway on ships and submarines and deployed in expeditionary roles, around the globe today.

As the chartlet below shows, about 95 ships (1/3 of the Navy) are deployed around the globe protecting the Nation's interests. This is our mandate: to be where it matters, when it matters.

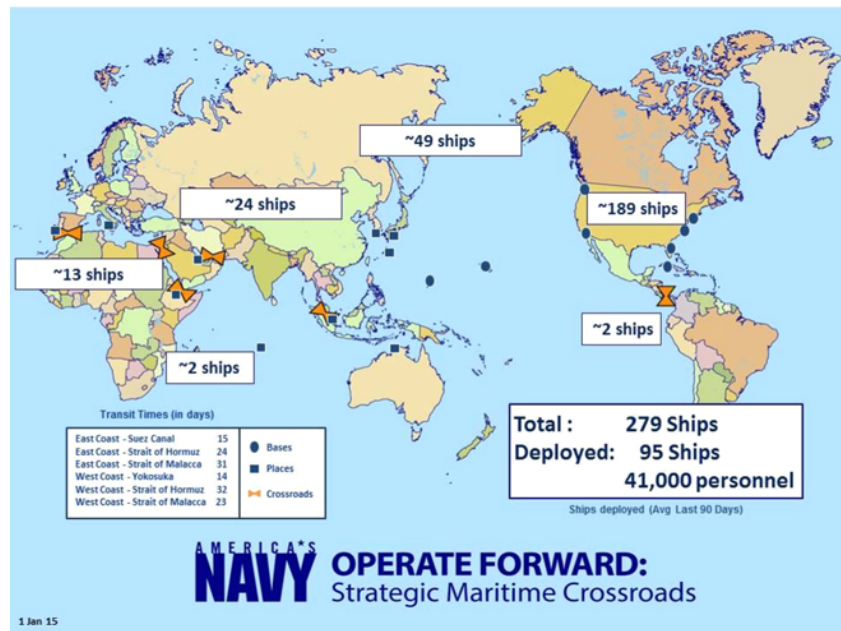


FIGURE 1: THE NAVY'S FORWARD PRESENCE TODAY

I would like to begin this statement describing for you the guidance that shaped our decisions within the President's budget for fiscal year 2016 (PB-16) submission. I will address the Navy's situation following sequestration in fiscal year 2013, the Bipartisan Budget Act of 2013 (BBA), and the National Defense Authorization Act (NDAA) and Appropriations Act for fiscal year 2015. Then, I will provide details of our PB-16 submission.

STRATEGIC GUIDANCE

The governing document for PB-16 is the Secretary of Defense's 2014 Quadrennial Defense Review (QDR). The QDR uses the President's 2012 Defense Strategic Guidance (DSG) as a foundation and builds on it to describe the Department of Defense's role in protecting and advancing U.S. interests and sustaining global American leadership. The DSG and its 10 Primary Missions of the U.S. Armed Forces have guided Navy's planning for the past 3 years. Validated by the QDR, those missions remain the baseline against which I measure our posture in various fiscal scenarios. Also, 2020 is the "benchmark" year identified by the DSG, and that remains the timeframe on which my assessments are focused.

The QDR's updated strategy is built on three pillars: Protect the Homeland, Build Security Globally, and Project Power and Win Decisively. In support of these, it requires the Navy to "continue to build a future Fleet that is able to deliver the required presence and capabilities and address the most important warfighting scenarios."

In order to improve its ability to meet the Nation's security needs in a time of increased fiscal constraint, the QDR also calls for the Joint Force to "rebalance" in four key areas: (1) rebalancing for a broad spectrum of conflict; (2) rebalancing and sustaining our presence and posture abroad; (3) rebalancing capability, capacity, and readiness within the Joint Force; and (4) rebalancing tooth and tail. To satisfy these mandates of the QDR strategy, the Navy has been compelled to make tough choices between capability, capacity, and readiness across a wide range of competing priorities. Our fundamental approach to these choices has not changed since I assumed this position. We continue to view each decision through the lens of the tenets I established when I took office: Warfighting First, Operate Forward, Be Ready.

OVERVIEW

Sequestration deeply affected the Navy budget in fiscal year 2013 and we have not yet recovered. Stabilized funding in fiscal year 2014 and 2015 provided by the BBA, along with an additional \$2.2 billion above Navy's requested budget in fiscal year 2015, provided limited relief from sequestered Budget Control Act of 2011 (BCA) funding levels and helped Navy's overall posture. However, the cumulative effect of budget shortfalls over these years has forced the Navy to accept significant risk in key mission areas, notably if the military is confronted with a technologically advanced adversary or forced to deny the objective of an opportunistic aggressor in a second region while engaged in a major contingency. By "risk," we mean that some of our platforms will arrive late to the combat zone, and engage in conflict without the benefit of markedly superior combat systems, sensors and networks, or desired levels of munitions inventories. In real terms, this means longer timelines to achieve victory, more military and civilian lives lost, and potentially less credibility to deter adversaries and assure allies in the future.

The PB-14 Future Years Defense Program (FYDP) submission was the baseline required by Navy to carry out all 10 DSG missions. Over the last 3 years, however, the Navy funding under sequestration and the BBA was \$25 billion less than the PB-13/14 submissions, shortfalls that manifest in the continued erosion of our warfighting advantages in many areas relative to potential adversaries. PB-16 represents the bare minimum to execute the DSG in the world we face, but still results in high risk in two of the most challenging DSG missions that depend on adequate numbers of modern, responsive forces. Should resources be further reduced below PB-16 levels, and certainly if sequestered, the DSG will need to be revised.

If budgeted at PB-16 levels, we assess that the Navy of 2020 will:¹

- Include 304 ships in the Battle Force, of which about 115 will be deployed. This global deployed presence will include more than two Carrier Strike Groups (CSG) and two Amphibious Ready Groups (ARG) deployed, on average.
- In the best case, provide "surge" capacity of about three CSGs (by approximately 2018) and three ARGs (by approximately 2020), not deployed, but ready to respond to a contingency.
- Deliver forces to conduct the DSG primary mission Deter and Defeat Aggression, but with higher risk compared to PB-14 due to capacity and readiness challenges.
- Conduct, but with greater risk, the DSG primary mission Project Power Despite Anti-Access/Area Denial (A2/AD) Challenges against a technologically advanced adversary compared to PB-14. This is principally due to the slower delivery of new critical capabilities, particularly in air and missile defense, and overall ordnance capacity.

To ensure the Navy remains a balanced and ready force while complying with the reduction in funding below our PB-14 plan, we were compelled to make difficult choices in PB-16, including: slowing cost growth in compensation and benefits; deferring some ship modernization; deferring procurement of 18 of Navy's most advanced aircraft; delaying over 1,000 planned weapons procurements; and continuing to reduce funding for base facilities sustainment, restoration, and modernization. Deferments in PB-16 compound modernization delays we were compelled to accept in PB-15 due to budget constraints.

¹Navy revised the accounting guidelines for its Battle Force according to requirements set forth in the fiscal year 2015 National Defense Authorization Act. Numbers in this statement are not directly comparable to those used in prior testimony, see chart below. The NDAA prohibits inclusion of " . . . patrol coastal ships, non-commissioned combatant craft specifically designed for combat roles, or ships that are designated for potential mobilization." Ships that were counted last year, but are no longer counted, are Patrol Craft (PC) and Hospital Ships (T-AH). The following illustrates the differences between new and old Battle Force accounting guidelines: PB-16 New Guidelines—As of 1 Jan 2015: 279; Fiscal year 2016: 282; Fiscal year 2020: 304. PB-16 Old Guidelines—As of 1 Jan 2015: 288; Fiscal year 2016: 291; Fiscal year 2020: 308.

Additional challenges are on the horizon. In the long term beyond 2020, I am increasingly concerned about our ability to fund the Ohio Replacement ballistic missile submarine (SSBN) program—our highest priority program—within our current and projected resources. The Navy cannot procure the Ohio Replacement in the 2020s within historical shipbuilding funding levels without severely impacting other Navy programs.

CONTINUING IMPACT OF SEQUESTRATION IN FISCAL YEAR 2013

Sequestration in fiscal year 2013 resulted in a \$9 billion shortfall in Navy's budget, as compared to the PB-13 submission. This instance of sequestration was not just a disruption, it created readiness consequences from which we are still recovering, particularly in ship and aircraft maintenance, Fleet response capacity, and excessive CSG and ARG deployment lengths. As I testified in November 2013, March 2014, and January 2015, the continuing resolution and sequestration reductions in fiscal year 2013 compelled us to reduce both afloat and ashore operations, which created ship and aircraft maintenance and training backlogs. To budget for the procurement of ships and aircraft appropriated in fiscal year 2013, Navy was compelled to defer some purchases to future years and use prior-year investment balances to mitigate impacts to programs in fiscal year 2013 execution. The most visible impacts occurred in Operations and Maintenance funded activities. Specific impacts to Navy programs include:

- Cancelled five ship deployments.
- Delayed deployment of USS *Harry S. Truman* strike group by 6 months.
- Inactivated, instead of repaired, USS *Miami*.
- Reduced facilities restoration and modernization by about 30 percent (to about 57 percent of the requirement).
- Reduced base operations, including port and airfield operations, by about 8 percent (to about 90 percent of the requirement).
- Furloughed civilian employees for 6 days, which, combined with a hiring freeze and no overtime for 6 months, reduced our maintenance and sustainment output through lost production and support from logisticians, comptrollers, engineers, contracting officers, and planners.
- Cancelled Fleet engagements and most port visits, except for deployed ships.

While the Navy was able to reprioritize within available resources to continue to operate in fiscal year 2013, this is not a sustainable course for future budgets. The actions we took in 2013 to mitigate sequestration only served to transfer bills amounting to over \$4 billion to future years for many procurement programs—those carryover bills were addressed in Navy's fiscal year 2014 and fiscal year 2015 budgets. If we were sequestered again, we would be forced to degrade current and future Fleet readiness.

Shortfalls caused by the fiscal year 2013 sequestration remain in a number of areas and the Navy is still working to recover from them. For example, we have not yet caught up from shipyard maintenance backlogs. We are working through shipyard personnel capacity issues to determine when ships can be fit back into the maintenance cycle and are balancing that against operational demands on the ships to ensure we meet the global force management requirement for Combatant Commands. The result of maintenance and training backlogs has meant delayed preparation for deployments, forcing us, in turn, to extend the deployments of those units already on deployment. Since 2013, many CSGs, ARGs, and destroyers have been on deployment for 8–10 months or longer. This comes at a cost to the resiliency of our people, sustainability of our equipment, and service lives of our ships.

Maintenance and training backlogs have also reduced Navy's ability to maintain required forces for contingency response to meet Combatant Command operational plan requirements. Although the requirement calls, on average, for three additional CSGs and three additional ARGs to deploy within 30 days for a major crisis, Navy has only been able to maintain an average of one group each in this readiness posture. Root causes can be traced to the high operational tempo of the Fleet, longer than expected shipyard availabilities, and retirements of experienced shipyard workers, but the fiscal year 2013 sequestration exacerbated the depth of this problem and interfered with our efforts to recover.

Assuming a stable budget and no major contingencies for the foreseeable future, I estimate it is possible to recover from the maintenance backlogs that have accumulated from the high operational tempo over the last decade of war and the additional effects of sequestration by approximately 2018 for CSGs and approximately 2020 for ARGs, 5 plus years after the first round of sequestration. This is a small glimpse of the readiness "price" of sequestration.

WHERE WE ARE TODAY

Before describing our fiscal year 2016 submission, I will discuss the Navy's current posture, which established the baseline for our PB-16 budget.

Congress's passage of the BBA averted about \$9 billion of an estimated \$14 billion reduction we would have faced under sequestration in fiscal year 2014. It enabled us to fund all planned ship and aircraft procurement in fiscal year 2014, but cumulatively the shortfalls increased risk in Navy's ability to execute DSG missions. The BBA still left a \$5 billion shortfall below PB-14 in our investment, operations, and maintenance accounts.² The shortage in funding compelled us to reduce procurement of weapons (many missile types) and aircraft spare parts, defer asymmetric research and development projects, cancel repair and maintenance projects for facilities ashore, and defer procurement of maintenance/material support equipment for the Fleet.

The recent passage of the fiscal year 2015 NDAA and Consolidated and Further Continuing Appropriations Act averted about \$2 billion of the estimated \$13 billion reduction that Navy would have faced under sequestration; an \$11 billion shortfall remains (as compared to PB-14). Although the funding enabled us to continue the refueling and complex overhaul of the USS *George Washington* (CVN 73), Navy was forced to balance its portfolio to mitigate the shortfall by making choices between capability, capacity, and readiness. We were compelled to further reduce the capacity of weapons and aircraft, slow modernization, and delay upgrades to all but the most critical shore infrastructure. As I described in testimony in March 2014, PB-15 represented another iterative reduction from the resources we indicated were necessary to fully resource the DSG missions, making Navy less ready to successfully Deter and Defeat Aggression and Project Power Despite Anti-Access/Area Denial (A2/AD) Challenges. Continuing along this budget trajectory means that by 2020, Navy will not have recovered sufficient contingency response capacity to execute large-scale operations in one region, while simultaneously deterring another adversary's aggression elsewhere. Also, we will lose our advantage over adversaries in key warfighting areas such as Anti-Surface Warfare, Anti-Submarine Warfare, Air-to-Air Warfare, and Integrated Air and Missile Defense.

OUR STRATEGIC APPROACH TO PRESIDENT'S BUDGET FISCAL YEAR 2016

In developing our PB-16 submission, we evaluated the warfighting requirements to execute the primary missions of the DSG. These were informed by: (1) current and projected threat, (2) global presence requirements defined by the Global Force Management Allocation Plan (GFMALP), and (3) warfighting scenarios as described in Combatant Commanders' Operation Plans (OPLANs) and Secretary of Defense-approved Defense Planning Scenarios (DPS). We used these warfighting scenarios to assess our ability to execute more than 50 end-to-end capabilities, also known as "kill chains" or "effects chains." These chains identify all the elements needed to provide a whole capability, including sensors, communications (networks), operators, platforms, and weapons. To arrive at a balanced program within fiscal guidance, we focused first on building appropriate capability, then delivering it at a capacity we could afford. Six budget priorities guided us:

First, maintain a credible, modern, and survivable sea-based strategic deterrent. Under the New START Treaty, the Navy SSBN force will carry about 70 percent of the U.S. strategic nuclear warheads by 2020. Our PB-16 request sustains today's 14-ship SSBN force, the Trident D5 ballistic missile and support systems, and the Nuclear Command, Control, and Communications (NC3) suite. The *Ohio*-class SSBN will begin retiring, one per year, beginning in 2027. To continue to meet U.S. Strategic Command presence and surge requirements, PB-16 continues to support construction of the first Ohio Replacement SSBN in 2021 for delivery in 2028 and first deterrent patrol in 2031. As part of the Navy's Nuclear Enterprise Review, our PB-16 submission also adds approximately \$2.2 billion across the FYDP to: (1) increase shipyard and Nuclear Strategic Weapons Facilities (SWF) capacity by funding required civilian end-strength; (2) accelerate investments in shipyard infrastructure; (3) fund additional manpower associated with nuclear weapons surety; and (4) fund key nuclear weapons training systems.

Second, sustain forward presence of ready forces distributed globally to be where it matters, when it matters. We continue to utilize cost-effective approaches such as forward basing, forward operating, and forward stationing ships in the Asia-Pacific, Europe, and the Middle East. Rotational deployments will be stabilized and more predictable through continued implementation of an improved deployment

² Congress subsequently added \$3.4 billion in fiscal year 2014, which added an SSN and increased Navy's Ship Modernization, Operations, and Sustainment Fund (SMOSF).

framework called the Optimized Fleet Response Plan (O-FRP). We will distribute our ships to align mission and capabilities to global regions, ensuring high-end combatants are allocated where their unique capabilities are needed most. We will meet the adjudicated fiscal year 2016 GFMAP; this represents about 45 percent of the global Geographic Combatant Commander (GCC) requests. Sourcing all GCC requests would require about 450 combatant ships with requisite supporting structure and readiness.

Third, strengthen the means (capability and capacity) to win in one multi-phase contingency operation and deny the objectives of—or impose unacceptable costs on—another aggressor in another region. PB-16 prioritizes investments to close gaps in critical kill chains, but accepts risk in capacity or in the rate at which some capabilities are integrated into the Fleet.

Fourth, focus on critical afloat and ashore readiness. PB-16 helps improve the overall readiness of our non-deployed forces, but not to our satisfaction. With a stable budget and no major contingencies for the foreseeable future, I estimate it is possible to recover from the maintenance backlogs by approximately 2018 for CSGs and approximately 2020 for ARGs. Facilities Sustainment, Restoration, and Modernization (FSRM) funds are increased for fiscal year 2016 to arrest the decline of facilities conditions, but then FSRM funds are inadequate for the remainder of the FYDP, in order to fund afloat readiness. Our budget constraints prevent us from funding all but the most critical shore facility upgrades in fiscal year 2017 and beyond.

Fifth, sustain or enhance Navy's asymmetric capabilities in the physical domains, as well as in cyberspace and the electromagnetic spectrum. PB-16 prioritizes capabilities to deal with adversary threats, including electromagnetic spectrum and cyber capabilities and those capabilities that provide joint access developed in concert with other Services under the Joint Concept for Access and Maneuver in the Global Commons (formerly known as Air-Sea Battle). In line with USCYBERCOM priorities, we are investing in cyber defense-in-depth and expansion of cyber defense initiatives to tactical platform Information Technology systems, boundary defense solutions for ships, and security improvements for our C4I systems.

Sixth, sustain a relevant industrial base, particularly in shipbuilding. We will continue to evaluate the impact of our investment plans on our industrial base, including ship and aircraft builders, depot maintenance facilities, equipment and weapons manufacturers, and science and technology researchers. The government is the only customer for some of our suppliers, especially in specialized areas such as nuclear power. PB-16 addresses the health of the industrial base by sustaining adequate capacity, including competition, where needed and viable. While prioritizing required capabilities, we also sought to sustain a viable industrial base.

WHAT WE CAN DO

As described earlier, due to the impact of prior year shortfalls and modernization deferrals in the PB-16 FYDP, we still face significant risk in executing at least two of ten primary missions of the DSG in 2020. The 2014 update to the "2012 Force Structure Assessment" (FSA) and other Navy analysis describe the baseline of ships needed to support meeting each mission. Against that baseline and using a rigorous assessment of over 50 capabilities (with appropriate capacity) necessary to be tactically successful (called "end-to-end kill chain" analysis), we conclude that with PB-16, the Navy of 2020 will support each of the 10 DSG missions as follows:

Provide a Stabilizing Presence

PB-16 will meet the adjudicated presence requirements of this mission. By increasing the number of ships forward stationed and forward based, and by improving our deployment preparation process called the Optimized Fleet Response Plan (O-FRP), presence improves in some global regions as compared to previous budget submissions. The Navy of 2020:

- Provides a global presence of about 115 ships (same as PB-15); an increase over an average of 95 ships deployed today.
- Increases presence in the Asia-Pacific region. This includes forward deploying an additional SSN to Guam, the most capable DDG to Japan, Mobile Landing Platform (MLP), Joint High Speed Vessel (JHSV), both Littoral Combat Ship (LCS) variants, MQ-8C, P-8A, EA-18G, upgraded F/A-18E/F, and E-2D. MQ-4C Triton high endurance unmanned aerial vehicles will operate from Guam in 2017. This presence will assure allies, shape, and deter. However, a major maritime operation will require substantial naval forces to swing from other theaters or surge forward from CONUS bases.
- "Places a premium on U.S. military presence in—and in support of—partner nations" in the Middle East, by increasing presence by 40 percent to about 36

ships in 2020. Though not counted in Navy's Battle Force, 10 of our Patrol Craft (PC) serve as Forward Deployed Naval Forces (FDNF) operating out of Bahrain, and seven LCS will join them by the end of 2020. In 2016, Navy's first Mobile Landing Platform/Afloat Forward Staging Base (MLP/AFSB) will augment the on-station AFSB-Interim (a modified dock landing ship) to support Special Operations Forces and augment mine countermeasure capability.

- Continues to “evolve our posture” in Europe by meeting ballistic missile defense (BMD) European Phased Adaptive Approach (EPAA) requirements with four BMD-capable guided missile destroyers (DDG) in Rota, Spain, and two land-based sites in Poland and Romania. The first two DDGs arrived in 2014 and all four will be in place by the end of 2015. Additional presence in Europe will be provided by forward operating JHSVs and rotationally deployed combatants.
- Will provide “innovative, low-cost and small-footprint approaches” to security in Africa and South America by deploying one JHSV, on average, to each region. Beginning in fiscal year 2015, we will deploy one hospital ship (T-AH), on average, and, beginning in fiscal year 2016, add one PC ship, on average, to South America. AFSBs forward operating in the Middle East could also provide additional presence in Africa as required. As available, we are deploying ships for shorter periods (<=2 months) in theaters other than those which they would be primarily assigned (e.g., AFRICOM and SOUTHCOM).

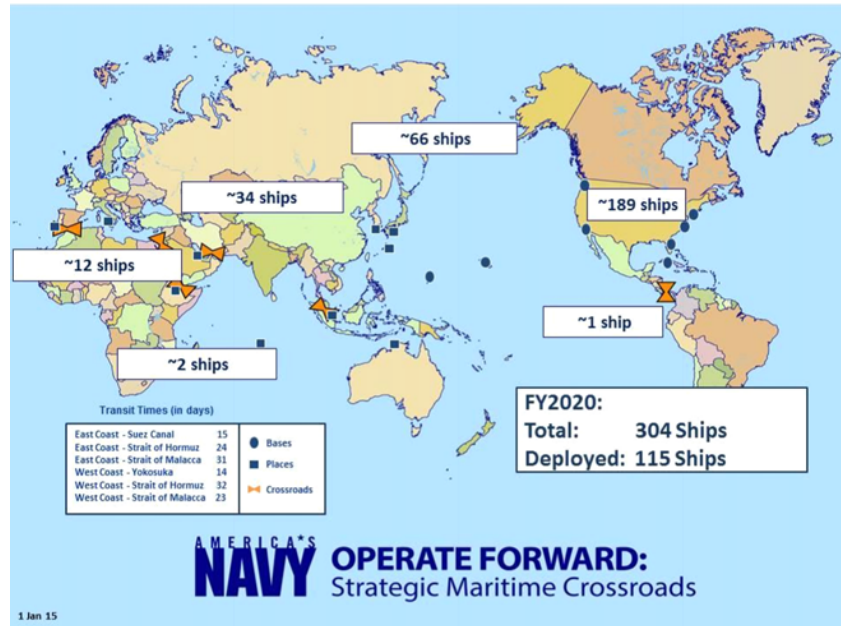


FIGURE 2: THE NAVY'S FORWARD PRESENCE IN FISCAL YEAR 2020

Counter Terrorism and Irregular Warfare (CT/IW)

We will have the capacity to conduct widely distributed CT/IW missions. This mission requires Special Operations Forces, Navy Expeditionary Combat capabilities such as Explosive Ordnance Disposal (EOD), Combined Explosive Exploitation Cells (CEXC), Intelligence Exploitation Teams (IET), and a variety of platforms that can accommodate adaptive force packages. PB-16 procures a third MLP/AFSB in fiscal year 2017 for delivery in fiscal year 2020, and funds an enhanced SOF capability on all three AFSBs, which provides more robust medical facilities, improved C4I, and increased accommodation for aircraft, and other SOF-specific equipment. PB-16 also procures ten MQ-8C Fire Scout systems for deployments aboard LCS, which are fundamentally multi-mission.

Deter and Defeat Aggression

Navy inherits and continues to experience high risk in this warfighting mission. Our FSA described the ship force structure necessary to meet this mission's require-

ment: to be able to conduct one large-scale operation and “simultaneously be capable of denying the objectives of—or imposing unacceptable costs on—an opportunistic aggressor in a second region.” According to the FSA, the Navy has a requirement for a force of 11 CVN, 88 large surface combatants (DDG and CG), 48 attack submarines (SSN), 12 SSBN, 11 large amphibious assault ships (LHA/D), 12 amphibious transport docks (LPD), 11 dock landing ships (LSD), 52 small surface combatants, 10 JHSV, 29 combat logistics force (CLF) ships, and 24 command and support ships. Provided sufficient readiness is restored and maintained across the Fleet, this globally distributed force will yield a steady state deployed presence of more than two CSG and two ARG, with three CSG and three ARG ready to deploy within 30 days in response to a contingency (“surge”). PB-16 puts Navy on a path to procure the right mix of ships as defined by the FSA; however, the 2020 Battle Force will have a shortfall of small surface combatants due to a gap in FFG and MCM retirements and LCS deliveries. Other sources of risk in this primary mission are less aircraft, modern sensors, networks, and weapon procurements across the FYDP. Slowed modernization across the Fleet is a serious concern.

Conduct Stability and Counterinsurgency Operations

The Navy of 2020 will be able to meet the requirements of this DSG mission.

Project Power Despite Anti-Access/Area Denial (A2/AD) Challenges

Our power projection capability, reconstitution of weapons systems, and modernization programs to enable Joint Assured Access have been deferred due to budget constraints over the last 3 years. This reduces options and decreases our ability to assure access in all domains (space, air, surface, subsurface, and cyber). Over the last 3 years, funding shortfalls required us to reduce procurement in weapons by over 4,000 planned quantities. We continue to take risk in capacity in order to preserve investments in developing future capabilities. This reduced procurement of weapons and deferring of air and missile defense capabilities, coupled with joint force deficiencies in wartime information transport, C2 resiliency, and airborne ISR, will result in high risk in conducting this DSG mission if we are faced with a technologically advanced adversary.

Counter Weapons of Mass Destruction

This mission has two parts: (1) interdicting weapons of mass destruction as they proliferate from suppliers, and (2) defeating the means of delivery during an attack. PB-16 will continue to meet the requirements for this mission by providing sufficient deployed CSG, ARG, and surface combatants, as well as Navy special warfare personnel (SEAL) and EOD platoons, to address the first part. For the second part, BMD-capable DDG exist in sufficient numbers to meet the majority of GCC presence requirements under the GFMAP, and can be postured to counter weapons delivered by ballistic missiles in regions where threats are more likely to originate. That said, missile defense capacity in some scenarios remains a challenge.

Operate Effectively in Space and Cyberspace

Our PB-16 submission continues to place priority on cyber efforts to build the Navy's portion of the DOD's Cyber Mission Forces and strengthen our cyber defense capabilities afloat and ashore. We have accessed about 80 percent of the 1,750 cyber operators that will form 40 cyber mission teams by the end of 2016; we will continue to recruit, hire, and train this force. Additionally, we will align Navy networks with a more defensible DOD Joint Information Environment (JIE) through the implementation of the Next Generation Enterprise Network (NGEN) ashore and Consolidated Afloat Networks and Enterprise Services (CANES) at sea. We will continue funding for the launch and sustainment of the Mobile User Objective System (MUOS), DOD's newest and most robust solution for extending narrowband Ultra High Frequency Satellite Communications (SATCOM) connectivity ashore, in flight, and at sea. Also critical to assured command and control, PB-16 continues funding the installation and sustainment of the Navy Multiband Terminal (NMT), our newest and most robust solution for giving surface and submarine forces access to wideband Super High Frequency and Extremely High Frequency SATCOM connectivity.

Maintain a Safe, Secure, and Effective Nuclear Deterrent

This mission is the Navy's top priority in any fiscal scenario, and our PB-16 submission meets its requirements. Our sea-based strategic deterrent remains safe, secure, credible, and effective today, but Navy is also implementing 27 specific actions based on the DOD Nuclear Enterprise Review recommendations, including oversight, training, policy, and process improvements, funded with an additional PB-16 investment of over \$400 million in fiscal year 2016 and over \$2 billion across the FYDP. Our PB-16 submission satisfies STRATCOM demand for at-sea SSBN avail-

ability through the end of the current *Ohio*-class's service life. Navy's PB-16 submission also funds Nuclear Command, Control, and Communications (NC3) modernization, Trident D5 ballistic missile Life Extension Program (LEP) to maintain a 2017 Initial Operational Capability (IOC), and Common Missile Compartment development on a 2019 delivery timeline. Continued Congressional support for Naval Reactors' Department of Energy (DoE) funding is essential to maintain life-of-the-ship core reactor design and development synchronization with our Ohio Replacement shipbuilding schedule, which ensures lead ship procurement in 2021, and refueling of the land-based prototype. Naval Reactors' DoE budget also includes the second year of funding for the Spent Fuel Handling Project (SFHP), recapitalization of which is critical to the Navy's refueling and defueling schedule of nuclear-powered aircraft carriers and submarines.

Defend the Homeland and Provide Support to Civil Authorities

PB-16 will maintain an appropriate capacity of aircraft carriers, surface combatants, amphibious ships, and aircraft that are not deployed and are ready for all homeland defense missions.

Conduct Humanitarian, Disaster Relief, and Other Operations

Navy's global presence and training is sufficient to conduct these operations.

MODERNIZATION

The following paragraphs describe specific PB-16 programs that influence our ability to conduct the missions required by the DSG, and the impact of programmatic action:

Shipbuilding

Navy shipbuilding priorities remain largely consistent with PB-15. Navy will procure 48 ships across the fiscal year 2016–2020 period. Fourteen Battle Force ships will be delivered in fiscal year 2016 alone. PB-16:

- Maintains funding to support RDTE and advanced procurement of the first Ohio Replacement SSBN, our highest priority program. Without increased shipbuilding funding in fiscal year 2021 and beyond, Ohio Replacement SSBN funding will consume the majority of Navy's annual shipbuilding budget, and degrade other shipbuilding programs. Appropriations for SSBN recapitalization are historically consistent with the last period of SSBN procurement between 1974 and 1990.
- Fully funds USS *George Washington* (CVN 73) refueling and complex overhaul.
- Procures 10 *Arleigh Burke*-class DDG (one Flight IIA and nine Flight III) in the FYDP, two per year, resulting in an inventory of 72 by 2020. The first Flight III DDG, which will incorporate the advanced AN/SPY-6 radar (formerly called the Air and Missile Defense Radar, or AMDR), will be procured in fiscal year 2016 and delivered in fiscal year 2021.
- Procures 10 *Virginia*-class SSNs in the FYDP, two per year, resulting in an inventory of 22 *Virginia*-class submarines (51 total SSNs of all types) by 2020.
- Funds the final nine LCS (Flt 0+) across the FYDP (three per year fiscal year 2016–2018). Then beginning in fiscal year 2019, Navy will procure new Small Surface Combatants (two in fiscal year 2019, three in fiscal year 2020) based on upgraded variants of the LCS that Navy will designate as "Frigates" (FF). There will be no construction gap between procurement of the last LCS (Flt 0+) and the first "frigate." The new "frigate" will offer improvements in capability, lethality, and survivability.
- Funds replacement of LSD amphibious ships with the LX(R) starting with advanced procurement in fiscal year 2019 and procurement of the first LX(R) in fiscal year 2020. LX(R) serial production will begin in fiscal year 2022.
- Procures a twelfth LPD, which will be developed in parallel with the LX(R) program and incorporate targeted design and construction initiatives to increase affordability. Adding LPD 28 to the inventory will help mitigate expeditionary capability and amphibious lift shortfalls.
- Funds four Fleet oilers (T-AO(X)) across the FYDP beginning in fiscal year 2016. T-AO(X) replaces the aging single hull fleet oiler. This new procurement ensures continued combat logistics support to our ships.
- Funds five Fleet salvage ships (T-ATS(X)) across the FYDP beginning in fiscal year 2017. These new ships replace the two aging salvage class ships with a single class while improving capability and performance.

Combatant Ship Modernization

In parallel with shipbuilding, PB-16 continues modernization of in-service platforms to allow our combatants to remain relevant and reach their expected service lives. The ship modernization program does not keep pace to deal with high-end adversary weapons systems by 2020. Flight I and II of the *Arleigh Burke*-class DDG began mid-life modernization in fiscal year 2010; 13 will have completed Hull Mechanical and Electrical (HM&E) modernization by the end of 2016, and 6 of these ships will have also completed combat systems modernization. In fiscal year 2017, we will begin to modernize the Flight IIA DDGs. However, due to fiscal constraints we were compelled to reduce the combat systems procurements of one DDG Flight IIA per year, starting in fiscal year 2016. This will result in some destroyers not receiving combat systems upgrades when originally planned to allow them to pace the threat, particularly in Anti-Air Warfare (AAW) and Ballistic Missile Defense (BMD).

In order to maintain force structure that provides Air Defense Commander support to the CSGs, Navy will induct two Guided Missile Cruisers (CGs) into phased modernization in fiscal year 2015 and an additional two in fiscal year 2016. This will place a total of four ships in modernization with the intent that each ship period will be limited to 4 years. We are committed to modernizing a total of 11 CGs in the current modernization program. Without any phased modernization program, the CG class will retire, without replacement, at the end of their service lives between 2020 and 2030. Using the Congressionally directed 2/4/6 plan, the final retirements will occur between 2036 and 2039. Under the Navy's original PB-15 plan, the final CG retirement would have occurred in 2045, at a significantly reduced cost to the Navy, and would have relieved pressure on a shipbuilding account largely consumed in the 2030s with building Ohio Replacement SSBNs and aircraft carriers. We request Congressional support for Navy's original plan.

Nine of 12 *Whidbey Island*-class LSDs have undergone a mid-life update and preservation program, two are currently being modernized, and one more will be inducted into phased modernization in fiscal year 2016. Modernization of seven *Wasp*-class large deck amphibious assault ships (LHD) was delayed by 2 years, and they will now complete mid-life modernization by fiscal year 2024. Modernization of the eighth LHD, USS *Makin Island*, will be addressed in subsequent budget submissions.

WARFIGHTING CAPABILITY

Aviation

PB-16 continues our transition, albeit more slowly than desired, to the "Future Air Wing." This transition will dramatically improve our capabilities and warfighting capacity across critical "kill chains." But, funding shortfalls have stretched (deferred) modernization plans in this area. This delay will call into question our ability to deal with near peer competitors, especially if directed to carry out our DOD campaign plan in the 2020 timeframe. Specifically, we will continue to field more advanced land-based maritime patrol aircraft (manned and unmanned) to evolve our ISR, ASW, and sea control capabilities and capacity. To further these objectives, PB-16 provides the following capabilities:

- Navy Integrated Fire Control-Counter Air (NIFC-CA) Increment I capability will field with the E-2D *Advanced Hawkeye* aircraft in 2015, with four air wings transitioned to the E-2D by 2020. This integrates aircraft sensor and ship weapons capabilities, improving lethality against advanced air and missile threats. However, we deferred two E-2D outside the FYDP (procure 24 vice 26).
- The F-35C Lightning II, the carrier-based variant of the Joint Strike Fighter, is scheduled to achieve IOC in 2018. However, F-35C procurement will be reduced by 16 airframes (from 54 to 38) across the PB-16 FYDP when compared to PB-15. The F-35C, with its advanced sensors, data sharing capability, and ability to operate closer to threats, is designed to enhance the air wing's ability to find targets and coordinate attacks.
- Continued support for a Service Life Extension Program (SLEP) for the legacy F/A-18A-D Hornet to meet our strike fighter inventory needs while integrating the F-35C. With SLEP modifications, some of these aircraft will achieve as much as 10,000 lifetime flight hours, or 4,000 hours and (16 years) beyond their originally designed life.
- To address Navy electronic attack requirements, EA-18G will reach full operational capability in fiscal year 2017. Replacement of the aging ALQ-99 jamming pods begins in fiscal year 2021, when the Next Generation Jammer (NGJ) Increment I, featuring upgraded capabilities against mid-band frequencies,

- reaches IOC. NGJ Increment II research and development on low band frequencies remains funded for fiscal year 2016.
- All components of an improved air-to-air “kill chain” that employs infrared (IR) sensors to circumvent adversary radar jamming will be delayed another year. PB-16 increased funding to procure an additional 28 Infrared Search and Track (IRST) Block I sensor pods for F/A-18E/F *Super Hornet*, for a total of 60, across the FYDP; however, the IRST Block I sensor system will field in 2018 (versus 2017 under PB-15) and the improved longer range IRST Block II will not deliver until 2022 (versus 2019 under PB-15).
- Improvements continue to the air-to-air radio frequency “kill chain” that defeats enemy jamming at longer ranges. By 2020, 380 jamming protection upgrade kits for F/A-18E/F *Super Hornets* and EA-18G *Growler* will be delivered. But, we were compelled to defer 180 kits beyond the FYDP.
- Integrates the Small Diameter Bomb II (SDB II) on the F/A-18 by fiscal year 2020, and procures 1,590 units across the FYDP to enhance carrier air wing precision strike capabilities.
- V-22 (Navy variant) aircraft have been selected as the solution to the aging C-2 Carrier Onboard Delivery (COD) aircraft. PB-16 procures 24 aircraft over the FYDP with an IOC of fiscal year 2021. The V-22 (Navy variant) extends the range and increases the flexibility of Strike Group resupply.
- Navy’s commitment to the Unmanned Carrier-Launched Airborne Surveillance and Strike System (UCLASS) program continues. However, a DOD-wide Strategic Portfolio Review will delay UCLASS Air Vehicle segment contract award by at least 1 year. The remaining UCLASS Carrier Integration and Connectivity and Control System segments will continue and are funded through the FYDP.

Long Range Strike

Our precision strike capabilities and capacity will be critical to success in any foreseeable future conflict. Potential adversaries have already fielded and continue to develop advanced, long range weapons that will require effective counters. We remain challenged in this area. Accordingly, PB-16:

- Funds Virginia Payload Module (VPM) RDT&E and SCN to accelerate inclusion of VPM on at least one Virginia Class Block V SSN per year in fiscal year 2019 and 2020. VPM will enable *Virginia*-class SSNs to mitigate the loss of SSGN strike capacity as they begin to retire in 2026. VPM will more than triple the Tomahawk Land Attack Missile (TLAM) Block IV strike capacity of a *Virginia*-class SSN from 12 to 40 missiles.
- Supports the existing Tactical Tomahawk cruise missile inventory by extending service life through investments in critical capability enhancements and vital parts to achieve maximum longevity. PB-16 adds 100 Tomahawks in fiscal year 2016. Production deliveries will now continue through fiscal year 2018, which minimizes factory impact until the start of Tomahawk Block IV inventory recertification and modernization beginning in fiscal year 2019.
- Invests in future capability by commencing an analysis of alternatives for the Next Generation Land Attack Weapon (NGLAW), with a planned Fleet introduction in the 2024–2028 timeframe, at least a decade prior to the sundown of TLAM Block IV in the 2040s.

Anti-Surface Warfare

Navy remains challenged in this mission area due to both capability and capacity shortfalls. To deal with potential adversaries’ long-range anti-ship cruise missiles and maritime air defenses, PB-16 implements a plan to deliver a family of anti-surface warfare (ASuW) capabilities. The program maintains current ASuW capability inherent in the Harpoon missile, Standoff Land Attack Missile-Expanded Response (SLAM-ER), Joint Standoff Weapon (JSOW) C-1, and Mk48 Advanced Capability (ADCAP) torpedoes. In the near term, we are pursuing options to develop an improved, longer range ASuW capability by leveraging existing weapons to minimize technical risk, costs, and development time. Five of ten Patrol Craft in the Arabian Gulf have been upgraded with short-range Griffin missiles, and the other five will receive them by the end of 2015. Additionally, PB-16 funds enhanced ASuW lethality for LCS by integrating surface-to-surface missiles (Hellfire Longbow) onto those platforms starting in 2017. Navy is evaluating which missile to select to provide upgraded LCS (“frigates”) an additional and even longer range over-the-horizon missile capability. Also, PB-16 continues to accelerate acquisition of the Long Range Anti-Ship Missile (LRASM) air-launched variant, which will achieve early operational capability on F/A-18E/F aircraft in fiscal year 2019.

Anti-Submarine Warfare

PB-16 sustains our advantage in the undersea domain by delivering the following capabilities, although capacity challenges persist:

- Procures 47 P-8A *Poseidon* maritime patrol aircraft, replacing the legacy P-3C Orion's capability, and completing the transition by fiscal year 2019. We continue investments in the development of a high-altitude anti-submarine warfare capability (HAAWC), which is composed of a MK 54 torpedo kit and software support system.
- Continues installation of ASW combat systems upgrades for DDGs and improved Multi-Function Towed Arrays (MFTA) for DDGs and CGs. Both installations will be complete on all DDGs forward based in the Western Pacific by 2018.
- Continues upgrades to all our P-8A and ASW helicopters in the Western Pacific with sonobuoys and advanced torpedoes by 2018; however, in PB-16 we were compelled to reduce weapons capacity, which equated to cancelling 240 MK 54 lightweight torpedoes.
- Procures 145 MK 48 ADCAP torpedoes over the FYDP to reduce a wartime requirement shortfall from 30 percent to 20 percent, and invests in modularity and endurance improvements to enable more efficient production, better performance, and future upgradability.
- Improves surface ASW capability in the LCS ASW Mission Package by employing an MFTA in concert with variable depth sonar (VDS) in 2016.
- Defers recapitalization of our ocean surveillance ship, T-AGOS(X), from fiscal year 2020 to outside the FYDP, a reflection of our intent to extend the service life of our current T-AGOS vessels.
- Develops and builds the Large Displacement Unmanned Undersea Vehicle (LDUUV) in the FYDP to augment submarine capabilities. We will use Office of Naval Research Innovative Naval Prototype large UUVs to train our Fleet operators, preparing them for LDUUV Fleet introduction in the early 2020s.

Electromagnetic Maneuver Warfare

PB-16 puts Navy on a path to maneuver more freely in the electromagnetic spectrum, while strengthening our capability to degrade adversaries' ability to do so. It maintains our investment in the Ships' Signals Exploitation Equipment (SSEE) Increment F, which equips ships with a capability to interdict the communications and address and offset elements of adversary kill chains by 2020. PB-16 adds an advanced geo-location capability to SSEE Increment F, which contributes to defeating the "left side" of the adversary's ballistic missile kill chain and C4ISR systems. It also increases our investment in upgraded electromagnetic sensing capabilities for surface ships via the Surface Electronic Warfare Improvement Program (SEWIP) Block 2 that will deliver in 2016, procuring an additional 14 systems. PB-16 begins low rate initial production of SEWIP Block 3 in 2017 to add jamming and deception capabilities to counter advanced anti-ship cruise missiles. PB-16 also stands up Real-Time Spectrum Operations (RTSO) as a Program of Record. RTSO will provide ships and strike groups the ability to sense, control, and plan the use of spectrum, detect interference, notify the operators of spectrum issues, and provide recommended actions allowing for command and control of the electromagnetic spectrum.

Our cyber capability continues to afford the Navy a competitive advantage, but we are growing increasingly concerned about potential vulnerabilities that could affect combat readiness. Recognizing these risks, in fiscal year 2015 the Navy stood up a dedicated task force to evaluate our cyber security posture and manage our investment portfolio to ensure we are spending money where it matters most. In addition to evaluating our cyber risk and informing our budget process, the task force will also recommend changes to the Navy's acquisition and management of our networks and cyber-connected systems.

Mine Warfare

To enhance our ability to counter mines in the Middle East and other theaters, our PB-16 program sustains investments in the LCS mine countermeasures mission package (MCM MP), completing initial testing of its first increment in 2015 and achieving full operational capability in 2019. The MCM MP provides significantly faster rates of waterspace mine clearance over legacy counterparts. PB-16 also sustains our interim AFSB, USS *Ponce*, in service through at least fiscal year 2017. USS *Ponce* provides forward logistics support and command and control to MCM ships and helicopters, allowing them to remain on station longer and sustain a more rapid mine clearance rate. In the near-term, PB-16 continues funding for Mk 18 Kingfish unmanned underwater vehicles (UUV) and Sea Fox mine neutralization

systems deployed to the Arabian Gulf today, as well as increased maintenance and manning support for forward-deployed MH-53 airborne mine countermeasures platforms and *Avenger*-class MCM ships forward based in Bahrain.

READINESS

Afloat Readiness

PB-16 funds ship operations to 45/20 (deployed/non-deployed) steaming days per quarter. Overseas Contingency Operations (OCO) funds an additional 13/4 days (deployed/non-deployed), providing the training and operations required to meet our fiscal year 2016 GFMAP commitment. PB-16 baseline funds ship maintenance to 80 percent of the requirement, with OCO funding the remaining 20 percent, to continue life cycle maintenance reset of CVNs and surface force ships. To address the workload to be completed in our public shipyards, Navy funds additional workforce (up to 33,500 Full Time Equivalent workers by fiscal year 2017) and will send selective submarines to private shipyards in fiscal year 2016 and fiscal year 2017.

With respect to the Flying Hour Program, PB-16 achieves deployed readiness levels of T2.5/T2.0 (USN/USMC) in accordance with guidance for all carrier air wing (CVW) aircraft.³ Navy funds Aviation Depot Maintenance to 83 percent of the requirement, which puts the depots at capacity. As Aviation Depot Maintenance throughput improves, the associated F/A-18 flying hours and depot maintenance budgets will increase to the more notional level of 77 percent. PB-16 increases Navy Expeditionary Combat Command fiscal year 2016 base funding from 42 percent to 80 percent. OCO funds the remaining 20 percent.

Year after year, the Navy has consistently provided more global presence than authorized and adjudicated by the GFMAP. In 2013 and 2014, for example, Naval forces provided 6 percent and 5 percent more forward presence, respectively, than planned due to emergent operations and unanticipated contingencies. This unbudgeted usage amounted to greater than 2,200 days in theater over that planned in 2013 and greater than 1,800 days in theater over that planned in 2014. We should operate the Fleet at sustainable presence levels, in order for the Navy to meet requirements while still maintaining material readiness, giving ships time to modernize, and allowing them to reach their expected service lives.

Ashore Readiness

To comply with fiscal constraints, we are compelled to continue accepting risk in shore infrastructure investment and operations. PB-16 prioritizes nuclear weapons support, base security, and airport/seaport operations while maintaining our commitment to quality of life programs for our Sailors and Families. We are funding the sustainment, restoration, and modernization of our facilities at a level to arrest the immediate decline in the overall condition of our most critical infrastructure. Although fiscal year 2016 marks an improvement in the facilities funding when compared to PB-15, Navy is still below the DOD goal for facilities sustainment. Facilities sustainment also declines in the PB-16 FYDP in order to preserve the operational readiness of our Fleet. When restoring and modernizing our infrastructure, we intend to prioritize life/safety issues and efficiency improvements to existing infrastructure and focus on repairing only the most critical components of our mission critical facilities. By deferring less critical repairs, especially for non-mission-critical facilities, we are allowing certain facilities to degrade and causing our overall facilities maintenance backlog to increase. We acknowledge this backlog must eventually be addressed.

Navy will exceed the minimum 6 percent in capital investment in Naval Shipyards and Depots described in 10 USC 2476, with a projected 7.4 percent in fiscal year 2016. Additionally, we are on track to exceed the target in fiscal year 2015 with a projected 6.3 percent investment. Our Naval Shipyards and depots are critical to maintaining the warfighting readiness of our force, and Navy will continue to prioritize investments to address the most critical safety and productivity deficiencies.

³Due to extended depot repair time, F/A-18A-D availability is reduced and shortfalls in aircraft will be borne by non-deployed forces. As more legacy F/A-18s approach their 6,000 hour design life and are inducted for assessment and life extension to 8,000 or 10,000 hours, aviation depots are experiencing production challenges resulting in longer-than-expected repair cycle times for these aircraft. Navy has taken steps to better maintain and repair these legacy aircraft and expects to improve depot productivity by 2017, with the backlog fully recovered by 2019. In PB-16, Flying Hours for these aircraft will reflect the maximum executable profile and achieve T2.0 for deployment, with tailored T-ratings through the training cycle.

Audit Readiness

Navy is on course to achieve full auditability on all four financial statements by the end of fiscal year 2017, a legislative mandate. An audit of the Schedule of Budgetary Activity (SBA), began in December 2014. This initial audit is a critical step to identify any weaknesses in business systems and business processes. The Navy's Audit Plan has been greatly improved by lessons learned from our sister Service, the United States Marine Corps, which achieved a clean audit on their SBA in 2013. The remaining challenge to meeting the fiscal year 2017 mandate is to achieve auditability on the other major financial statement, Navy's Balance Sheet. Audit readiness on the Balance Sheet depends primarily on the accuracy of the multi-billion-dollar Asset line; the Navy has been executing a plan to bring Service-wide accountability for major assets (by amounts and value) into compliance with financial audit standards. The Navy is confident that it will be able to undergo an audit of all of its financial statements by fiscal year 2017 to meet the Congressional requirement.

Family Readiness

Family readiness is fully integrated into our Navy's call to be ready. PB-16 continues to provide support for critical programs that support our Sailors and their Families so that they can adapt to, and cope with, the challenges of balancing military commitment with family life. Navy Fleet and Family Support Centers ensure military families are informed, healthy, and resilient through robust programs that include: relocation assistance; non-medical and family counseling; personal and family life education; personal financial management services, information and referral services; deployment assistance, domestic violence prevention and response services, exceptional family member liaison; emergency family assistance and transition assistance. Increased stress and longer family separations have amplified program demand and underlined the importance of these support programs and services to ensure the psychological, emotional, and financial well-being of our Sailors and their Families.

Navy Child and Youth Programs continue to provide accessible, affordable, and high-quality child and youth development programs through child development centers, youth centers, child development homes, and contract child care spaces. All Navy child development centers are DOD certified and nationally accredited, and provide consistent, high-quality care at affordable rates based on total family income.

MILITARY CONSTRUCTION

The PB-16 Military Construction program includes 38 projects valued at almost \$1 billion to invest in our construction worldwide. We have prioritized funding to enable IOC of new platforms such as LCS, P-8A, F-35C, MH-60, and MQ-4C through the construction of hangars, mission control centers, and various support and training facilities. We are also supporting Combatant Commander requirements by constructing a land-based Aegis site in Poland and upgrading port facilities in Bahrain. A portion of MILCON funds will recapitalize infrastructure in three naval shipyards and improve the resiliency of utilities systems at seven bases. Three projects will improve the quality of life for our Sailors and their Families by addressing unaccompanied housing issues in Florida and Maryland and constructing a new child development center in Japan.

HEALTH OF THE FORCE

We measure and track the health of our force using Navy-wide metrics on recruiting, retention, manning levels; unit operational tempo; individual tempo (how often individual Sailors are away from home); morale; stress; sexual assault rates; suicide rates; alcohol-related incidents, and other factors. Based on a comprehensive study of these metrics and trends, today we rate the overall health of our Navy force as good. Our Sailors are our most important asset, they are our "asymmetric advantage," and we have invested appropriately to keep a high caliber all-volunteer force. At work, the Navy is committed to providing our Sailors a challenging, rewarding professional experience, underpinned by the tools and resources to do their jobs right. Our obligations don't stop at the bottom of the brow. I remain focused on dealing with enduring challenges that relate to the safety, health, and well-being of our people, no matter where they are located. We also support our Navy Families with the proper quality of life in terms of compensation, professional and personal development, and stability (i.e., deployment predictability). Navy's 21st Century Sailor Office (OPNAV N17), led by a flag officer, continues to integrate and synchronize

our efforts to improve the readiness and resilience of Sailors and their Families. Specific initiatives that we continue to support in PB-16:

21st Century Sailor Programs

Suicide Prevention

Preventing suicide is a command-led effort that leverages a comprehensive array of outreach and education. We continue to raise awareness regarding the combination of indicators most common to suicide-prone individuals such as post-traumatic stress, relationship problems, legal and financial problems, periods of transition and mental health issues. We have launched several key initiatives including: (1) mandatory Operational Stress Control (OSC) skills training for units within 6 months of deployment, (2) new guidance for Navy unit commanders and health professionals to reduce access to lethal instruments under certain conditions, (3) an interactive, scenario-based suicide prevention training tool, (4) an OSC curriculum specific to our Reserve Sailors, and (5) specialized Chaplain Corps professional development training on suicide prevention. Our Sailors continue to learn about the bystander intervention tool known as “A.C.T.” (Ask—Care—Treat). We also invest in the resilience of our people to help them deal with any challenge.

Resilience

Our research shows that a Sailor’s ability to steadily build resilience is a key factor in navigating stressful situations. Education and prevention initiatives train Sailors to recognize operational stress early and to use tools to manage and reduce its effects. Our Operational Stress Control (OSC) program is the foundation of our efforts to teach Sailors to recognize stressors in their lives and mitigate them before they become crises. We expanded our OSC mobile training teams, developed Bystander Intervention to the Fleet training, and deployed resiliency counselors on our aircraft carriers and large deck amphibious ships. The 21st Century Sailor Office is also conducting a Total Sailor Fitness curriculum review and developing a Resilience Management System to automate the collection and reporting of all destructive behaviors and better coordinate and integrate our resilience efforts. We also launched a new campaign across the Fleet in 2015 called “Every Sailor, Every Day,” which emphasizes personal responsibility and peer support, so that Sailors are even more empowered to look out for and help other Sailors.

Sexual Assault

The Navy continues to pursue a deliberate strategy in combatting sexual assault. We continue to focus on preventing sexual assaults, ensuring victims are fully supported, improving investigation programs and processes, and ensuring appropriate accountability. These efforts include making sexual assault forensic exams available on all ships and 24/7 ashore, having a cadre of professional and credentialed sexual assault response coordinators and victim advocates, special victim trained investigators and JAGs, and ensuring commands take all reports of sexual assault seriously and support the victim. We will enhance our response efforts by full implementation of deployed resiliency counselors on large deck ships, enhanced NCIS investigative capability using specially training Master-at-Arms, and continued legal assistance to victims through our Victims Legal Counsel program.

Sustaining a professionalized response and victim advocacy system remains the top priority, but preventing sexual assaults in the first place is an imperative. Our strategy focuses on improving command climate, strengthening deterrence measures, and encouraging bystander intervention. To facilitate the latter, we trained facilitators to lead small, peer-group interactive discussions using various scenarios. Likewise, we have focused on raising awareness and accountability regarding retaliation to reduce the potential for re-victimization. A RAND survey of DOD found that 53 percent of retaliation is “social” or “peer,” so we are focusing in on that area. Navy efforts are aligned with SECDEF direction to enhance first line supervisor skills and knowledge in recognizing signs of possible acts of retaliation. Recent Navy survey results show that prevalence of sexual assaults is decreasing, but we remain fully committed to creating and sustaining a culture where Sailors understand the importance of treating Shipmates with dignity and respect at all times, in all places.

Manpower

End Strength

PB-16 supports an fiscal year 2016 Navy active end strength of 329,200 and reserve end strength of 57,400. It appropriately balances risk, preserves capabilities to meet current Navy and Joint requirements, fosters growth in required mission areas, and provides support to Sailors, Navy Civilians, and Families. Programmatic changes tied to force structure and fact-of-life additions resulted in modest PB-16

active component end strength growth. Examples of force structure-related changes include retaining personnel for CVN 73 and its air wing, restoring manpower to nine cruisers that will remain in operation, and building crews for new construction destroyers (DDG 51, DDG 1000) and submarines (*Virginia* Class). PB-16 end strength remains fairly stable across the FYDP, reaching approximately 330,000 active and 58,900 reserves in fiscal year 2020.

Sea Duty

Navy continues to emphasize and reward sea duty. Aggregate Fleet manning (what we call “fill”) increased from 93 percent in fiscal year 2013 to 96 percent in fiscal year 2014, the equivalent of roughly 3,500 more Sailors aboard surface ships. Also, we are very close to achieving our goal of ensuring that more than 90 percent of our Sailors are serving in jobs at the required grade with requisite experience and training (what we call “fit”). Navy is committed to reducing deployment lengths to 7 months, but in recognition of those who have been experiencing longer deployments (over 220 days), in 2014 we began providing additional pay called Hardship Duty Pay-Tempo (HDPT). We have also incentivized and rewarded sea duty, in general, by increasing Sea Pay.

Personnel Management

Recruiting and Retention

Navy recruiting and retention remain strong, although retaining personnel in certain critical skills continues to present a challenge, particularly as the demands we place on Sailors and their Families remain high. The threat of looming sequestration, along with a recovering economy, is a troubling combination. We are beginning to see downward trends in retention, particularly among pilots, nuclear-trained officers, SEALs, and highly skilled Sailors in information technology, Aegis radar and nuclear specialties. We are using all tools at our disposal, including special and incentive pays, to motivate continued service in these critical fields.

Gender Integration

Integrating women across the force remain top priorities, because they allow the Navy to tap into the Nation’s rich talent pool. Over 96 percent of all Navy jobs are currently available to women and we expect to open all occupations by early next year. We are also focused on retaining women warfighters by increasing career flexibility through initiatives like the Career Intermission Program, which allows servicemembers to take a hiatus from their careers for up to 3 years to pursue personal priorities before re-entering the force. One of our major thrusts in fiscal year 2016 is to increase female accessions of both officer and enlisted in order to provide greater female representation in all operational units by 2025. We are setting a goal of increasing female enlisted accessions to 25 percent and changing the mix of ratings available to provide greater operational opportunity for women to serve. Integration of women into the submarine force is tracking well.

Diversity

Demonstrating our continued commitment to diversity, Navy recently established a Diversity Policy Review Board, chaired by the Vice Chief of Naval Operations. Individual community self-assessments focused on diversity trend analysis are also vetted at my level to ensure each warfighting enterprise remains free of barriers to advancement and committed to equal opportunity to our entire talent pool without regard to race, gender, country of origin, or religion. Additionally, Navy offers a range of Science, Technology, Engineering, and Mathematics (STEM) education and outreach programs to generate interest by the Nation’s youth in these fields and open up opportunities for them to consider potential Navy careers where STEM expertise could be applied.

Quality of Service

Navy continues to invest in projects designed to improve Sailor’s quality of service, which has two components: (1) quality of work, and (2) quality of life. Further, all funds saved through “compensation reform” are directly invested in quality of work and quality of life programs. PB-16 invests in quality of service initiatives such as barracks and training building improvements, greater travel and schools, expanded use of tactical trainers and simulators, and increased funding for spare parts and tools. It also leverages smart technology devices and applications through an “eSailor” initiative to enhance training, communication and Sailor career management ashore and afloat.

Talent Management

As our economy improves and the labor marketplace becomes even more competitive, the battle for America's talented youth in service continues to heighten. Today's generation, while remarkably similar in their desire to serve as the rest of us, have different expectations for a career of service. Meanwhile, our personnel policies and information systems are rooted in the assumptions of a previous era. Much like any legacy weapons system, that personnel and learning structure is in need of modernization. Thus, we are examining initiatives to modernize how we manage our future force, for example: (1) phase out strict Year-Group management practices in favor of a milestone-based promotion system, (2) improve lateral flows between reserve and active components to offer more agile pathways of service, and (3) upgrade our information technology, software, and tools to enable a more mobile, flexible, and accurate personnel delivery system. Further, we plan to build upon our cultural strengths through a number of family-centered initiatives, such as expanded child development and fitness resources, along with greater career flexibility for dual-military and dual-professional Families to grow together while serving our Nation.

Transition Assistance

A new Transition Goals, Plans, Success (GPS) curriculum replaced the 20-year old Transition Assistance Program (TAP) to improve career readiness standards and assist separating Sailors. The mandatory 5-day core curriculum provides Veterans Affairs benefits briefings, the Department of Labor employment workshop, financial management and budgeting, and military to civilian skills crosswalk. Moreover, the DOD Military Life Cycle (MLC) Transition Model, implemented in 2014 in the Navy, is working to begin a Sailor's transition preparation early in their career, by providing opportunities to align with civilian standards long before their intended separation, to achieve their post-military goals for employment, education, technical training, or starting a business.

Character Development

At all levels in the Navy, we emphasize a culture of integrity, accountability, and ethical behavior. All of these make up the character of our leaders. Good character enables unconditional trust throughout our ranks. This is essential to succeed as a unified, confident, and interdependent team. It must be inherent in all our operations.

Navy continues to emphasize character development as a priority in our overall leader development efforts, which are outlined in Navy's 2013 Navy Leader Development Strategy. In 2014, we established the Naval Leadership and Ethics Center, which serves as the means by which we guide our efforts. This new command, alongside our Command Leadership School, Senior Enlisted Academy, and Leadership and Ethics programs at the Naval War College, expand and improve character development initiatives at every level. We are developing an ethics curriculum (courses and modules) that will be embedded in schoolhouses across the Fleet. We are also strengthening our Navy Leader Development Continuum, which is the way in which we facilitate development of both officers and enlisted throughout all phases of their careers. We are not learning alone; we draw insights and share best practices with our sister Services. The Navy is committed to inculcating into every member of our profession the key attribute of good character. It reflects our Navy heritage and the citizens of our Nation expect that we uphold the highest standards of behavior and performance in the execution of duties.

NAVY RESERVE FORCE

Our Navy responded to extraordinary challenges over 13 years of war with the help of Reserve Sailors. The men and women of our Navy Reserve have increasingly put their civilian careers on hold in order to operate forward, provide critical support to Fleet and Combatant Commanders, and enhance the performance of the Joint Force. The Navy Reserve is a valuable hedge against an uncertain and challenging security environment; they augment the Fleet with unique skills to see us through any challenge. Since 9/11, reserve contributions to the active duty Navy component have been significant—over 73,000 Navy Reserve Sailors were mobilized in support of global contingency operations, providing tens of thousands of “boots on the ground” in Iraq, Kuwait, Bahrain, Afghanistan, and the Horn of Africa, as well as supporting key missions like those at Joint Task Force-Guantánamo Bay. On any given day, nearly 25 percent of the Navy Reserve force directly supports the Navy worldwide—about 15,000 Sailors.

Based on our annual assessment of the active/reserve mix, PB-16 continues investments in expanding critical capabilities within the Reserve component includ-

ing: (1) surge maintenance, by selectively targeting reservists who bring specific, valuable civilian skill sets to the Navy Total Force; (2) intelligence support, by realigning end strength to support this vital mission; (3) cyber warfare, by ensuring the appropriate mix of reserve manning to augment the active Navy capability; and, (4) high value unit escort, by leveraging the Navy Reserve's ability to fill short notice requirements using Reserve Coastal Riverine Force units to assume CONUS high value unit escort missions from the Coast Guard. PB-16 maintains several vital reserve capabilities, including all of the Navy-unique Fleet essential airlift assets (C-40A and C-130). These enable the Navy to meet short-notice, mission-critical airlift requirements more responsively than any other logistics option. It also supports Airborne Electronic Attack by fully funding a reserve airborne electronic attack squadron, which is an integral component of Navy's cyclic operational expeditionary airborne electronic attack deployment capability.

CONCLUSION

For the last 3 years, the Navy has been operating under reduced top-lines generating capability shortfalls amounting to \$25 billion less than the President's budget requests. With each year that the Navy receives less than requested, the loss of force structure, readiness, and future investments cause our options to become increasingly constrained. Navy has already divested 23 ships and 67,000 personnel between 2002 and 2012. And we have been assuming significant risk by delaying critical modernizations of our force to keep pace and maintain technological advantage.

Unless naval forces are properly sized, modernized at the right pace, ready to deploy with adequate training and equipment, and able to respond with the capacity and speed required by Combatant Commanders, they will not be able to carry out the defense strategy, as written. Most importantly, when facing major contingencies, our ability to fight and win will not be quick nor as decisive as required. To preclude a significantly diminished global security role for the Nation's military, we must address the growing mismatch in ends, ways, and means.

The world is more complex, uncertain, and turbulent; this trend will likely continue. Our adversaries' capabilities are modernizing and expanding. It is, therefore, vital to have an adequate, predictable, and timely budget to remain an effective Navy. PB-16 proposes the best balance of Navy capabilities for the authorized amount of funding, and enables the Navy to conduct the 10 primary missions outlined in the President's DSG and the QDR. But, there is considerable risk. PB-16 is the absolute minimum funding needed to execute our DSG. Should resources be further reduced below PB-16 levels, the DSG will need to be revised. If sequestration is implemented in fiscal year 2016, it will damage our national security.

I thank this committee for their abiding support and look forward to working together to develop viable options for our Nation's future.

Senator COCHRAN. Thank you very much.

General Dunford, any comments on the budget request?

STATEMENT OF GENERAL JOSEPH F. DUNFORD, JR., COMMANDANT, U.S. MARINE CORPS

General DUNFORD. Mr. Chairman, distinguished members of the committee, thanks for the opportunity to appear before you today. I am honored to be here with Secretary Mabus and Admiral Greenert and represent your marines.

I will begin by thanking the committee for your steadfast support. Due to your leadership, we feel it is the best trained and equipped Marine Corps our Nation has ever sent to war.

I know this committee and the American people have high expectations for marines as our Nation's expeditionary force in readiness. You expect your marines to operate forward, engage with our partners, deter potential adversaries, and respond to crises. And when we fight, you expect us to win. You expect a lot from your marines, and you should.

This morning, as you hold this hearing, over 31,000 marines are forward-deployed and engaged doing just what you expect them to do. Our role as the Nation's expeditionary force in readiness informs how we man, train, and equip the Marine Corps. It also in-

forms how we prioritize and allocate the resources that we get from Congress.

Over the past few years, we prioritized the readiness of our forward-deployed forces. Those are the forces that you can count on for immediate crisis response. Those are the forces that supported the recent evacuation of U.S. citizens in the Sudan, Libya, and Yemen. Those are the forces currently conducting strikes in Syria, in Iraq, training the Iraqi army, and protecting our Embassy in Baghdad. And those are the 22,500 marines that are west of the International Date Line in the Pacific.

I can assure you that your forward-deployed marines are well-trained, well-led, and well-equipped. But we have had to make tough choices to deal with the effects of two wars, sequestration in 2013, and reduced budgets in 2014 and 2015.

In order to maintain the readiness of our forward-deployed forces, we have not sufficiently invested in our home-station readiness, our modernization, our infrastructure sustainment, or our quality-of-life programs.

As a result, approximately half of our nondeployed units, and those are really the ones who would respond to unforeseen contingencies, suffer personnel, equipment, and training shortfalls. In a major conflict, those shortfalls will result in a delayed response and/or the unnecessary loss of young American lives.

Over time, underinvesting in modernization will result in maintaining older or obsolete equipment at higher costs and degraded capabilities. It will eventually erode our competitive advantage, and we don't ever want our marines and sailors in a fair fight.

The readiness challenges we have today provide context for my message this morning. We can meet the requirements of the Defense Strategic Guidance with the President's budget, but there is no margin. BCA funding levels, on the other hand, will exacerbate the challenges that we have today. It will also result in a Marine Corps with fewer available Active-Duty battalions and squadrons than would be required for a single major contingency. And perhaps more concerning, it will result in fewer marines and sailors being forward-deployed and in a position to immediately respond to a crisis involving our diplomatic posts, American citizens, or U.S. interests.

PREPARED STATEMENT

As we saw in the wake of Benghazi, the American people expect us to respond to today's crises today. We can only do that if we are properly postured to respond.

In closing, my assessment is that funding below the President's budget level will require that we develop a new strategy.

Thank you once again for the opportunity to appear before you this morning and for your leadership in addressing today's fiscal challenges.

Mr. Chairman, I look forward to your questions.

[The statement follows:]

PREPARED STATEMENT OF GENERAL JOSEPH DUNFORD, JR.

INTRODUCTION

The Marine Corps is the Nation's expeditionary force-in-readiness. Congress, specifically and uniquely, structured and prescribed the role of the Marine Corps as a "... balanced force-in-readiness, air and ground ... to suppress or contain international disturbances short of large scale war." Under this mandate, Marines are forward-deployed, forward-engaged, and postured to shape events, manage instability, project influence, and immediately respond to crises. As an inherently joint combined arms team, Marines assure access and enable heavier contingency forces to deploy from the United States in response to a major contingency.

Also, to meet the intent of the Congress, the Marine Corps must maintain a high state of combat readiness. We look at readiness through the lens of our 5 pillars of readiness—high quality people, unit readiness, capacity to meet the combatant commanders' requirements, infrastructure sustainment, and equipment modernization. These pillars represent the operational and foundational components of readiness across the Marine Corps. Our role as America's 9-1-1 force informs how we man, train, and equip our force, and how we prioritize and allocate resources across the pillars of readiness. While we will always ensure that our forward deployed Marines and Sailors are properly manned, trained and equipped, we seek to maintain balanced investment across the pillars to ensure current and future readiness. We emphasize that all Marines and all Marine units are physically and mentally ready to deploy to any clime and place, at any time.

The Marine Corps is a force of economy. For 6.0 percent of the defense budget, the Marine Corps provides 21 percent of the Nation's infantry battalions and 15 percent of the fighter/attack aircraft. These capabilities, organized as Marine Air Ground Task Forces with an organic logistical element, provide the Nation with affordable insurance and a strategic hedge in an era of uncertainty and unprecedented complexity.

STRATEGIC LANDSCAPE

The challenges of the future operating environment will demand that our Nation maintains a force-in-readiness that is capable of global response. The strategic landscape will be characterized by competition for natural resources, violent extremism, natural disasters, social unrest, cyber-attacks, regional conflict, and proliferation of advanced weaponry and weapons of mass destruction. The expansion of modern conventional and cyber weapons to a broader range of state and non-state entities, along with the erosion of U.S. technological advantages in areas where we have long enjoyed relative superiority, is likely to continue. Further, the actions of transnational criminal organizations and violent extremist groups will continue to contribute to regional unrest and instability that directly threaten U.S. interests through piracy, trafficking and terrorism. The U.S. must expect a security landscape characterized by volatility, instability and complexity, and a growing potential among adversaries to employ weapons of mass destruction.

As Marines, we view global security challenges from a maritime perspective. The majority of these challenges reside in the congested and diverse areas where the sea and land merge—the littorals. Today, more than 80 percent of the world's population currently resides within 100 miles of a coastline and this proportion is continuing to rise. Most maritime activities such as commercial shipping, fishing, and oil and gas extraction take place within 200 miles of the shore. It is no accident that the so-called "Arc of Instability" encompasses the littoral areas of South Central Asia, the Middle East, Africa. These geographic and demographic trends indicate a future security environment with a significant maritime element.

We expect that the next 10 years will be largely characterized by small-scale crises and limited contingencies in and around coastal environments. Should major operations and campaigns occur, they are likely to involve a significant maritime and littoral dimension. Ready, responsive, flexible and strategically mobile naval forces are essential to ensuring continued access and security in the global commons. The increased likelihood of operations in the littorals demands the Marine Corps focus on its Title 10 responsibilities to be organized, trained and equipped to come from the sea across the range of military operations.

America's responsibility as a world leader requires an approach to the current and future strategic landscape that leverages the forward presence of our military forces in support of our diplomatic and economic approaches. As stated in the 2012 President's Defense Strategic Guidance, "The United States will continue to lead global efforts with capable allies and partners to assure access to and use of the global commons, both by strengthening international norms of responsible behavior and by

maintaining relevant and interoperable military capabilities.” The Marine Corps’ unique capabilities support this strategic approach.

YOUR MARINES

In 2014, Marines responded to crises around the world and remained forward-deployed and forward-engaged managing instability, building partner capacity, strengthening alliances, and projecting influence. Your Marines demonstrated the relevance of expeditionary naval forces by executing more than 30 amphibious operations, 150 Theater Security Cooperation (TSC) events, and 130 exercises around the globe. While we have drawn down our forces in Afghanistan, our operational tempo remains extraordinarily high. Most Marines in the operating forces are deploying for 7 months and spending at or below 14 months at home before redeploying. There is a strong demand signal for Marines and tailored Marine Air Ground Task Forces.

OEFAfghanistan

In 2014, the Marine Corps contributed to the mission in Afghanistan by training, advising and assisting the Afghanistan National Security Forces (ANSF) and supporting the fight against terrorism in Southwest Asia. Our operations focused on ensuring the success of the Afghanistan elections in the summer of 2014 and transitioning security responsibilities to the ANSF. With Marines serving in an advisory capacity, the ANSF retained control of all district centers in Helmand Province. Regional Command (SW) also turned over operational responsibilities to the International Security Assistance Force Joint Command facilitating redeployment of Marine Expeditionary Brigade-Afghanistan (MEB-A) to home station. Today, a residual Marine presence continues to support the Resolute Support Mission (NATO)/OPERATION FREEDOM’S SENTINEL (U.S.) in Afghanistan.

In more than 13 years of combat operations, 377 Marines were killed and 4,946 injured in Afghanistan. We remember their selfless service and many sacrifices. Our success in RC-SW is directly related to the high quality men and women in our ranks, the training that prepared them to face the rigors of combat, and the equipment that provided protection and a tactical edge over the enemy. Due to the enduring support of Congress and the American people, the Marines who fought in Afghanistan had the training and equipment necessary to accomplish the mission. The full support of Congress for a variety of initiatives such as Mine Resistant Armor Protected Vehicles (MRAPs) and upgraded individual protective equipment saved lives and enhanced combat effectiveness.

Amphibious Ready Group/Marine Expeditionary Unit (ARG/MEU) Operations

Our preferred method of deploying our Marines is aboard Navy amphibious ships to form ARG/MEU Teams. These are the Nation’s most-ready, forward-postured forces. This capability provides strategic speed, agility, and options to our National Command Authority. They operate in international waters retaining flexibility for the Geographic Combatant Commander (GCC) while respecting the sovereign territory of individual nation states. The ARG/MEU team can respond faster from longer ranges with greater capabilities across the ROMO than any other conventional forces in the Department of Defense and are also capable of enabling Joint, inter-agency and coalition forces. In 2014, the 11th, 13th, 22d, 24th, and 31st Marine Expeditionary Units (MEU) deployed and contributed to combatant commander requirements by participating in numerous exercises and operations throughout the CENTCOM, PACOM, AFRICOM, and EUCOM areas of responsibility (AORs). When required, the ARG/MEU has the scalability and versatility to respond to simultaneous emergencies. Last summer, the 22d MEU/Bataan ARG was operating in the CENTCOM AOR conducting operations in Yemen. When needed, elements of the ARG/MEU rapidly transited into the Mediterranean Sea to support the suspension of Embassy operations in Libya and relocation of its staff. During their return, they launched a force over 1200 miles to contribute to the initial response to counter ISIS. Concurrently, elements of the ARG/MEU continued to support U.S. operations in Yemen. Over the last year, we have also increased collaboration with SOF, significantly improving our complementary capabilities.

Due to their forward presence, flexibility, ability to respond quickly and the decision space they afford our leaders, ARG/MEU’s continue to be in high demand. Unfortunately, the Navy and Marine Corps can meet less than half of the GCC ARG/MEU crisis response force demand based on the ARG shipping available for tasking. Today, available expeditionary Navy/Marine Corps forces stand ready aboard ships to assure allies, deter potential adversaries, and provide persistent U.S. presence. Our Marines are forward deployed, with little to no footprint ashore, to respond and protect U.S. national security interests around the globe.

Special Purpose Marine Air Ground Task Force—Crisis Response (SPMAGTF-CR) Operations

With the high demand for Marine crisis response capabilities and the shortage of amphibious platforms from which to forward deploy forces, SPMAGTF-CRs were developed. While they don't provide the flexibility and responsiveness of an ARG/MEU, they mitigate a capability gap for the combatant commanders. Our SPMAGTF-CRs are tailored to respond to crisis and also conduct security cooperation activities with partner nations in order to develop interoperability, facilitate access, build partner capacity and security relationships, and gain regional understanding. This past year, SPMAGTF-CR units assigned to AFRICOM positioned forward in Morón, Spain and Sigonella, Italy safeguarded the lives of our diplomatic personnel and conducted military-assisted departures from the U.S. Embassy in South Sudan in January and our Embassy in Libya in July. The Marine Corps SPMAGTF-CR unit assigned to CENTCOM (SPMAGTF-CR-CC) became fully operational on 1 November 2014 and deployed to the CENTCOM AOR. Since November, SPMAGTF-CR-CC conducted Embassy reinforcement, TSC exercises, and provided critical aviation and ground capabilities in the fight against ISIL. Most recently, Marines from SPMAGTF-CR-CC supported the evacuation of our Embassy in Sana'a, Yemen. A third SPMAGTF deployed in support of Southern Command from June to September aboard USS *America* on her transit around the South American continent and executed partner-nation activities, key leader engagements and security cooperation activities. The placement of these Marine Corps tailored task force capabilities forward, where GCC's need them, provides enhanced diplomatic protection and additional crisis response options.

Marine Corps in the Pacific

The Marine Corps' activities in the Pacific are led by III Marine Expeditionary Force headquartered on Okinawa, Japan. This past year, III MEF conducted 52 operations and exercises. In 2014, III MEF conducted Exercise SSong Yong—the largest amphibious exercise of the year with our Korean allies further demonstrating the U.S. commitment to South Korea. III MEF plays an important role in maintaining stability in East Asia and significantly contributes to peace and prosperity throughout the region. A number of TSC exercises were conducted using Maritime Prepositioning Ships (MPS). While these platforms were designed to deliver heavy equipment for a major contingency, adapting them for day-to-day engagement enabled us to better support the combatant commander's theater campaign plan and mitigated the number of amphibious lift in the Pacific.

The Marine Corps continues to rebalance its force lay-down in the Pacific to support the Defense Strategic Guidance (DSG). The Distributed Laydown's planned end state of four geographically distributed, politically sustainable and operationally resilient MAGTFs in the Pacific (Australia, Guam, Japan, and Hawaii) is a long term effort that will span the next 15 years. In 2014, we met the Secretary of Defense's guidance to have 22,500 Marines west of the International Date Line, forward based and operating within the Asia-Pacific Theater. Marine rotational force-Darwin (MRF-D), based at Robertson Barracks, is in its third year of execution, and has rotated 1,263 Marines through Darwin conducting bi-lateral training and exercises. This rotational force provides MARFORPAC and PACOM with a ready and deployable MAGTF capable of Humanitarian Response/Disaster Relief (HA/DR), TSC, and crisis response operations. MRF-D has strengthened our alliance with our Australian allies and provided the GCC an immediate response option in the wake of an unforeseen crisis.

Black Sea Rotational Force, Embassy Security Forces, and Theater Security Cooperation (TSC)

Marine Corps operational commitments span across all GCCs contributing to stronger alliances, stable international order, and security for our diplomatic stations. In the Republic of Georgia, the Marine Corps prepared three Georgian infantry battalions for their deployment to Afghanistan. There, the Georgian forces provided force protection and executed Quick Reaction Force (QRF) missions as the ISAF mission transitioned to the Resolute Support Mission (RSM). Enabling the deployment of Georgian battalions reduced the requirement for U.S. forces in Afghanistan while providing the Commander with the requisite capabilities.

In support of our strong commitment to the security and stability in Europe, Marines of the Black Sea Rotational Force (BSRF) mission conducted hundreds of TSC activities in EUCOM and provided a significant crisis response option for the EUCOM commander. Additionally, Fleet Anti-Terrorism Security Teams (FAST) provided forward-deployed platoons to four Geographic Combatant Commanders in

support of dynamic mission tasking such as Embassy reinforcement in Baghdad, Iraq and Sana'a, Yemen.

The 2015 President's National Security Strategy emphasizes the security of American citizens. This past year the Marine Corps worked closely with the State Department to increase baseline security at high risk embassies and consulates. Today Marines are routinely serving at 173 embassies and consulates in 141 countries around the globe. In 2014, the Marine Corps Embassy Security Group added 237 Marine Security Guards (MSG) to new and current posts including Iraq, Lebanon, and Turkey. These Marines represent our initial installment towards the additional 1,000 MSG requirement from Congress. The Marine Security Augmentation Unit (MSAU) also deployed 29 times at the request of the State Department executing 16 Embassy/Consulate security missions and 13 VIP (POTUS/VPOTUS/SECSTATE) security missions. MSAU Marines deployed to Iraq, Israel, South Korea, Chad, China, Poland, Philippines, France, Bahrain, Romania, Australia, Brazil, United Kingdom, Kenya, Ukraine, South Sudan, Turkey, Mexico, and Thailand.

FISCAL YEAR 2016 BUDGET PRIORITIES

The President's Budget for fiscal year 2016 (PB16) allocates \$24 billion to the Marine Corps' baseline budget. To meet our responsibilities as the Nation's 9-1-1 force, we prioritized near-term readiness while assuming risk in our home station readiness, modernization, infrastructure, and quality of life programs. We will attempt to reestablish an acceptable balance across the 5 Pillars of Readiness across the future year's defense plan. The following is a detailed description of the Marine Corps' budget priorities supported by PB16 of Force Structure, ACV, JLTV, JSF, CH-53K, C4 and naval programs of interest.

Force Structure

In 2010, the Marine Corps' internal force structure review concluded that the USMC's optimal size to meet the requirements of the President's National Security Strategy was 186,800. This optimal size gives the Marine Corps the capacity we need to meet current steady state demand with a deployment-to-dwell (D2D) ratio greater than 1:2. We continue to support this review and conclusion. Today, the Marine Corps continues to execute its end-strength reductions that began during fiscal year 2012, reducing the Corps from a high of 202,000. The Marine Corps is adjusting its active duty end-strength to 182,000 Marines by 2017, emphasizing the enduring requirement to provide crisis response forces that meet today's demand. We can meet the DSG at this level, but with less than optimal time between deployments to train and allow Marines to be with their families.

Our most significant readiness challenge is the gap in the numbers of unit leaders with the right grade, experience, technical and leadership qualifications associated with their billets. Specifically, our current inventory of Non-Commissioned Officers (NCOs) and Staff Non-Commissioned Officers (SNCOs) is not meeting our force structure requirements. This dynamic directly affects our training, maintenance, and discipline resulting in degraded readiness and combat effectiveness. The Marine Corps' PB16 military personnel budget funds a fiscal year 2016 end-strength of 184,000 in our base and supports right-sizing our NCO corps to provide our Marines the small unit leadership they deserve.

Amphibious Combat Vehicle (ACV)

The Marine Corps appreciates the support of the Congress in restructuring the ACV program in the fiscal year 2015 appropriations bill. That action has set us on a path to publishing a Request for Proposals (RFP) to industry in March of this year and enables a truly 'streamlined' acquisition process. Leveraging the stability of the Services' requirements and the mature technologies of non-developmental, modern, wheeled, armored combat vehicles, the combat developers and acquisition professionals have developed a way forward to field a capability for the Marines in as little as 6 (vice 13 or more) years. Consistent with Marine Corps Ground Combat and Tactical Vehicle Strategy (GCTVS) and Expeditionary Force 21, the Amphibious Combat Vehicle (ACV) will be developed and procured in phases to incrementally field modern replacements for the aging Amphibious Assault Vehicle (AAV).

The program is based on the most current threat projections and anticipated operational requirements, and is fully informed by the real world challenges that our Marines have faced during 14 years of sustained combat. The ACV will provide our ground maneuver forces the ability to negotiate the challenging urban and cross-country terrain of the littorals while protecting them from ballistic and explosive threats and supporting them with precision heavy machine gun fire.

The President's budget fully funds ACV 1.1 within the FYDP. PB16 will buy 86 vehicles over the FYDP or approximately 42 percent of the 204 ACV 1.1 vehicles

in the Approved Acquisition Objective (AAO). When Full Operational Capability (FOC) is achieved in fiscal year 2023, we will have modernized two Assault Amphibian (AA) Companies currently equipped with four decades old AAVs with 204 new vehicles. ACV 1.1 plus the 1.2 increment are currently planned to modernize 6 of 10 AA Companies. With PB16 funding, the Marine Corps will achieve Initial Operational Capability (IOC) which consists of an ACV platoon of 21 armored vehicles, providing protected amphibious lift to an infantry company. IOC is achieved when the platoon is fully equipped, the unit is fully trained and judged combat ready for deployment, and the required maintenance and support personnel are in place to sustain the unit.

The need for self-deploying, high-water speed vehicles remains our ultimate objective. The capability to come from the sea and operate in the littorals will be significantly dependent on the speed at which we can maneuver. ACV 1.1 provides a responsible and effective approach to mitigating the age of our AAV fleet while investing in needed capabilities for tomorrow. We will continue to prioritize our science and technology efforts to field an amphibious combat vehicle that will fully support our operating concepts in the future.

Joint Light Tactical Vehicle (JLTV)

Over the past 14 years of combat, we found that the HMMWV utility vehicle was not adequate for the modern battlefield due to its vulnerability to improvised explosive devices (IEDs). In 2006, we began development of a light tactical vehicle that could combine the land mobility performance, transportability profile and payload of the HMMWV with the protection of a combat vehicle within the weight constraints of the expeditionary force. Today, the Joint Light Tactical Vehicle Program has three exceptionally strong designs in competition that will realize the initiating concept in production and deployment while increasing the protected mobility of the highest risk portion of the light combat and tactical vehicle fleet.

The JLTV program is in the engineering and manufacturing development (EMD) phase with Milestone C and the low rate initial production contract award scheduled for fiscal year 2015. The PB16 supports the Marine Corps' strategy to reach IOC for JLTV in the 4th quarter of fiscal year 2018 and FOC in the 4th quarter of fiscal year 2021. IOC consists of one infantry battalion fully fielded with the JLTV plus a training element.

Maritime Prepositioning Force (MPF), MARSOC, and critical supporting establishment training units will also be allocated a portion of PB16 funded vehicles. Vehicles will be allocated by unit based on the JLTV Fielding Plan, currently in development in support of Milestone C decision in 4th quarter of fiscal year 2015. PB16 will buy 4,476 vehicles over the FYDP, or approximately 80 percent of the increment I—5,500 vehicles—Approved Acquisition Objective (AAO).

Joint Strike Fighter (JSF)

Our tried and true F/A-18s, AV-8Bs and EA-6B Prowlers have performed magnificently in combat in Iraq and Afghanistan, providing our Marine riflemen the fires they needed, in every clime and place from sea bases large and small, and expeditionary bases ashore. With the help of Congress, we have kept these aircraft as modern as possible and extracted every ounce of readiness we can from them; however, the high operational tempo has pushed these aircraft to more rapidly approach the end of their service lives. Due to the uncertainty prevalent in today's global security environment, the Nation requires we maintain a capability to respond quickly in contested regions regardless of weather conditions. The F-35 Joint Strike Fighter, as part of the MAGTF, meets the Nation's needs.

The Marine Corps remains committed to the recapitalization of our aging TACAIR fleet through the procurement of the F-35. The JSF brings a new capability to the battalion sized forces that sail with our Marine Expeditionary Units. Today, there are a multitude of high risk regions where a crisis response operation would require large Joint strike packages to soften or blind the threat. These packages would have to include cruise missiles, fighter aircraft, electronic warfare platforms, aircraft which specialize in suppression and destruction of enemy air defenses, and strike aircraft—just for U.S. forces to gain access. Such strike packages require coordination across services and combatant commands and take weeks and months to assemble. This same kind of access can be attained with a single detachment of 4 to 8 F-35s—the same sized detachment which will reside with a Marine Expeditionary Unit. For major contingencies, a surge of F-35Bs to our amphibious carrier decks and forward austere bases enables even greater options and striking power. The F-35 provides a transformational capability to the Marine Corps and the Joint Force. It gives our Nation a day one, full spectrum capability against the most critical and prohibitive threats.

The Marine Corps prioritizes putting our TACAIR as close to our infantry as we can by basing them from Amphibious Carriers or austere Forward Operating Bases (FOBs) and Forward Arming and Refueling Points (FARPs) ashore. This places the F-35's transformational capabilities in the hands of the infantry Marine. The Marine rifleman is now supported immediately with close air support, electronic warfare capabilities, and intelligence, surveillance, and reconnaissance support in threat and weather conditions which previously would have denied aviation support. The F-35's ability to develop, process, and display information to the pilot and disseminate it at tactical, operational, and strategic levels is what makes the platform truly unique, "a server in the sky" for the MAGTF. The sensors and communications equipment of our F-35s allow pilots and forward air controllers to see through the clouds to exchange high fidelity pictures in environments we would consider a no go today. Enhancing the C2, strike and intel capabilities of the MAGTF commander, the F-35 transforms the MAGTF into an element capable of penetrating any AOR in the world to set the conditions necessary to enable follow-on forces.

The Marine Corps has maintained the lead in this transformational platform. The F-35B and C models will replace the over 23 year old F/A-18 Hornet, 18 year old AV-8B Harrier and the 27 year old EA-6B Prowler; the same aircraft that have been passed from fathers to sons and daughters now serving. We have stood up our first two squadrons of F-35Bs and will stand up a third in 2016. PB16 supports the Marine Corps' timeline to achieve IOC of its first F-35B squadron later this year and complete full transition by 2031. With the optempo expected to remain high, we will transition to F-35s as rapidly as possible. Continued Congressional support for this transition is key to increasing our degraded aviation readiness and minimizing our exposure to ever increasing operations and support costs for aged aircraft.

CH-53K

The CH-53E, the Marine Corps' heavy lift helicopter, is the only vertical heavy lift helicopter in the Department of Defense (DOD). Like its predecessors, the CH-53A/D, the CH-53E has continued a proud lineage of worldwide support of the Marine rifleman and Joint Force in various tactical and logistical capacities. Though a workhorse for the Marine Air Ground Task Force since its acquisition, the CH-53E does not have the capacity to support the Marine Expeditionary Brigade of 2024 with the payloads and ranges required to support the ship-to-objective maneuver concepts outlined in Expeditionary Force 21. Our CH-53 recapitalization effort is instrumental in maintaining a true heavy lift capability for the Marine Corps and the Nation for the future. Developmental testing is currently underway and the first flight of the CH-53K is scheduled for 2015 with an Initial Operational Capability in 2019. PB16 is instrumental in providing critical funding for the last test articles in support of a Milestone C decision in 2016.

The CH-53K will meet all of the requirements of the modern Marine Expeditionary Unit and Marine Expeditionary Brigade and remain the only heavy lift rotary wing asset in the DOD inventory. The CH-53K is a state of the art heavy lift vertical connector providing increased reliability, range and lift for the Marine Air Ground Task Force and Joint Force. The mainstay for the CH-53K will remain heavy lift external operations. To this end, its Key Performance Parameter (KPP) is the ability to externally transport a load weighing 27,000 pounds 110 nautical miles, nearly three times the capability of the CH-53E. Additionally the CH-53K will incorporate a triple hook system, facilitating the delivery of three independent loads, to three different locations, in support of three separate units dispersed across the battlefield. The new cabin will support the transportation of the DOD standard 463L pallet enabling more efficient "tail to tail" logistical transitions with C-5s, C-17s and C-130s. The implementation of civil sector logistical advancements will facilitate near real time situational awareness of all cargo and passengers embarked and delivered by the CH-53K. The CH-53K will provide precision and tempo for the Marine rifleman, enabling mission success.

PB16 provides Research, Development, Test and Evaluation (RDT&E) funding for the continued CH-53K System Development Demonstration contract which includes continued design, part qualification, developmental and operational test. Additionally, PB16 provides RDT&E funding for the incremental procurement of System Demonstration Test Articles 5 and 6, which will be used to ensure production readiness, quality system verification, and production planning and validation. We remain committed to our Program of Record of 200 CH-53Ks in order to keep Marine Corps' heavy lift assets relevant and effective for the Marine on the ground in the future MAGTF.

Command, Control, Communications and Computers (C4)

Deployed warfighters require access to the right data at the right place at the right time. The demand for information will not tolerate a break in access. With the speed in which technology evolves today, we must continue to grow C4 capabilities down to the operational level. Information must be available through multiple mediums, from flag pole to fighting hole. Our end state is to enable command and control in an information enterprise that supports the way the Marine Corps operates, which includes a range of missions from crisis response to supporting our Expeditionary Force 21 concept—all characterized by mission-tailored forces. A single Marine Corps network will support the Marine Corps' component of the Joint Information Environment.

Our main focus today is unifying our networks to seamlessly connect the deployed and engaged forces to Joint information and data. This provides our Marines, Sailors, and supporting personnel the persistent information needed to conduct operations. We continue to increase our cyber capacity with trained personnel and emergent technology to protect this critical data.

The Marine Corps must retain the ability to rapidly support the extension of the Marine Corps' information and data services to enhance our rapid response to crisis, provide contiguous command and control to a disaggregated force, and scale to support theater security and major combat operations. We will continue to invest in C4 down to the Corporals and Sergeants. This will allow our front line Marine rifleman to be more agile, lethal and responsive by directly leveraging the capabilities of the F-35 and communicating better with special operations forces.

Naval Integration and Programs of Interest

As the service with primary DOD Directive and Title 10 responsibility for the development of amphibious doctrine, tactics, techniques, and equipment, our capabilities are reliant on the Nation's investment in our partnered Navy programs. Naval integration will increasingly form an important component of our exercise and experimentation programs. The Marine Corps fully supports the Secretary of the Navy and CNO's efforts to balance amphibious platforms and surface connectors that facilitate operational maneuver from the sea and ship-to-objective maneuver with the other service requirements of the Navy.

The President's Budget investments in LPD-28, LX(R), and ship-to-shore connectors demonstrate our commitment to global maritime presence and the Nation's mandate to sustain an amphibious capability that can respond to deter, deny, and defeat threats on a global scale. We appreciate Congress providing a substantial portion of funding to procure a 12th LPD. The enhanced mission profiles of these new and additional platforms create operational flexibility, extended geographical reach, and surge capabilities to the Geographical Combatant Commands.

Naval investments in alternative seabasing platforms expand access and reduce dependence on land bases, supporting national global strategic objectives and providing operational flexibility in an uncertain world. The naval seabasing investments in the Mobile Landing Platform, the Large Medium-Speed Roll-on/Roll-off Ship (LMSR) strategic sealift ship, and the T-AKE Dry Cargo and Ammunition Ship as part of the Maritime Prepositioning Ship Squadrons, coupled with the Joint High Speed Vessel (JHSV) and connectors, provide the additional lift, speed, and maneuver necessary to augment Navy and Marine Corps future security capabilities. Although not a substitute for amphibious warships, these alternative lift platforms will complement amphibious ships.

While the President's Budget moves us in the right direction, it will take many years and a sustained effort to address the risk in the current number of amphibious ships and to address the material readiness of our current inventory. The Marine Corps will continue to work closely with the Navy to implement the 30 year ship building plan and to address the current readiness challenges.

READINESS

Proper balance across the 5 Pillars of Institutional Readiness is the most effective means of achieving a force capable of rapidly responding to challenges across the range of military operations while remaining good stewards of the Nation's resources. The 5 Pillars of Institutional Readiness involves operational readiness (i.e. Unit Readiness, and Capacity and Capabilities to Meet Requirements pillars) and foundational readiness (i.e. our investments in High Quality People, Infrastructure Sustainment, and Equipment Modernization pillars). The Marine Corps' ability to remain ready is enabled by the 5 pillars of readiness.

Our current funding level protects near-term readiness; however, it does so at the expense of long term modernization and infrastructure, threatening future readi-

ness. We are funding critical readiness accounts to include: operating forces; depot, intermediate and organizational maintenance; repair and sustainment of training ranges, training and education, exercises, and fuel and repair parts. The Marine Corps is not adequately resourcing our non-deployed units; it will take time and sustained funding to address the deficiencies in personnel, equipment and training. This is a rational choice given the current fiscal situation, but it is not sustainable over time. Imbalance amongst the pillars for long periods will hollow the force and create unacceptable risk for our national defense. During these fiscally constrained times, we must remain ever vigilant in the allocation of resources to ensure the holistic readiness of the institution and ensure every dollar is going where it is needed most. Since 2012 our accounts are auditable. This gives confidence to the American people and commanders that we ask only for the amount of funding required to provide a lean, highly capable, mobile and ready force.

High Quality People

Our Marines and civilians are the foundation of all that we do. We succeed because of our focus on people. They are the primary means by which the Marine Corps meets its defense responsibilities. The resources we dedicate to recruiting, retaining, and developing high quality people directly contribute to the success of our institution. Our commitment to quality must never waver.

Our success in maintaining an elite force begins with recruiting young men and women who possess the character, mental aptitude, physical and psychological fitness, and desire required to earn the title "Marine." The Marine Corps is committed to recruiting and retaining high-quality people who meet prescribed physical and mental standards, and are ready in mind, body and spirit to execute their duties in the defense of our Nation.

Today, the Marine Corps does not have the proper level of personnel stability or cohesion in our non-deployed units. The practice of moving Marines between units to meet manning goals for deployments creates personnel turbulence, inhibits cohesion, and is not visible in our current readiness assessment tools. This personnel turbulence affects our combat readiness and our ability to take care of Marines. Moving forward, we will improve cohesion by increasing our preparedness across the force and emphasizing consistency of leadership, personnel stability, and sustained readiness across the force. The overhaul of our manpower management and readiness reporting models, systems, policies, and processes will allow us to minimize personnel turbulence, increase unit stability, and develop cohesion. We ask Congress to support these measures through appropriations of the funds we have requested in PB16.

Our civilian workforce continues to be a significant force and readiness enabler to our institution. They reflect the same high quality standard that propels a ready force with many having previously worn the uniform of our Nation—68 percent are veterans. They also remain a lean portion of our organization at a ratio of only 1 appropriated funded civilian to every 10 active duty Marines. Our civilians are contributing where we need them most. With 95 percent working outside the National Capitol Region, our civilians are directly supporting Marines and the mission at our bases, stations, depots, and installations. Without these civilians, we would be forced to assign uniformed Marines to these tasks taking away leadership and capacity in operational units.

Our civilian workforce grew post-9/11, in large part due to military-to-civilian conversions, which allowed Marines to move from support billets to the operating force. A Department-wide focus on insourcing, new requirements (e.g. cyber), and necessary support for our military surge to 202,000 also played a role in the growth. In 2009, the Marine Corps proactively began reducing civilian structure and personnel, and we are continuing to reduce our workforce by another 10 percent, including 20 percent at headquarters.

A key element in our overall readiness is family readiness. The family members of our Marines are very much a part of the Marine Corps family. Their sacrifices and support are not taken for granted. As we return from 14 years of major combat operations, the Marine Corps is repositioning our capabilities to deliver core programs and services that best meet the needs of today's Marines and families. We are renewing our programs and services consistent with our reduced end strength, changing demographics, mission, and budget environment. We are emphasizing the importance of maintaining a high level of readiness. Our Marine and Family Programs exist to support unit mission readiness, and individual health and wellness goals. In order to maintain the high standard of family support, we will develop a plan with a bias toward decentralizing decisionmaking and resource allocation. These programs and their impact on our Marines will continue to be an area we

focus on to judge our readiness. We thank the Congress for your continued support of Marine and Family Readiness programs at the PB16 level.

Unit Readiness

Our operational tempo since September 11, 2001 has been high and remains high today. We expect this trend to continue. Your Marines serving today in the operating forces are either deployed, getting ready to deploy, or have recently returned from deployment. Congress directed the Marine Corps to be the Nation's force-in-readiness. The current fiscal environment challenges the Marine Corps' ability to meet this mandate. In these circumstances, the Marine Corps has assumed some risks to fund unit readiness in the near term. The Corps provides units ready to meet core and assigned missions in support of steady state and crisis/contingency requirements. Our ability to sustain assigned mission requirements with units ready to deploy must be carefully managed while we continue end-strength reductions.

Over half of home-station/non-deployed units report unacceptable levels of readiness; nevertheless, the Marine Corps excels at generating ready units to meet operational requirements. Deployed units report high levels of readiness for core and assigned missions. Alternately, the ability of non-deployed units to conduct full spectrum operations continues to degrade as home-station personnel and equipment are sourced to protect the readiness of deployed and next-to-deploy units. We must remain cognizant that our home-stationed units constitute the "ready forces" that would surge to conduct full spectrum operations required in major contingencies. As the Nation's first responders, the Marine Corps' home stationed units are expected to be in the same high state of readiness as its deployed units.

Our home station units' ability to train is challenged. Time is an essential component required to fix worn equipment and train units to standard. Lower end-strength and unit deployment to dwell (D2D) ratios, shortages in personnel and equipment at the unit level, and the paucity of amphibious and maritime prepositioning ships contribute to degraded full spectrum capability across the Service. For example, a D2D ratio of 1:2 means your Marines are deploying for 7 months and home for 14 months before deploying again. During that 14 month "dwell," units are affected by personnel changes and gaps, ship availability shortfalls, equipment reset requirements, degraded supply storages, training scheduling challenges and more. These challenges factor into every unit's mission to remain consistently ready.

Marine Aviation contains some of our most stressed units. The Marine Corps has 55 Active Component squadrons, three of which (2 VMM, and 1 VMFA) are in transition. Of the remaining 52 squadrons, 33 percent are deployed and 17 percent are in workups to deploy. Our minimum readiness goal to deploy is T-2.0. Deployed squadrons/detachments remain well trained and properly resourced, averaging T-2.17. Next-to-deploy units are often achieving the minimum goal of T-2.0 just prior to deployment. Non-deployed squadrons experience significant resource challenges which manifest in training and readiness degradation, averaging T-2.96.

The Marine Corps is applying resources to maintain the readiness of deployed and next-to-deploy units. Our focus is to continue to meet current requirements, while addressing the personnel, equipment, and training challenges across the remainder of the force. We are in the midst of a comprehensive review of our manning and readiness reporting systems. We will develop a detailed plan to enhance our overall readiness during 2015.

Capacity to Meet Combatant Commanders' Requirements

We are committed to meet the expeditionary requirements of our combatant commanders. The Marine Corps' PB16 military personnel budget funds a fiscal year 2016 end-strength of 184,000 on the way to 182,000 in fiscal year 2017. The Marine Corps of 182,000 includes the 1,000 additional MSG Marines directed by Congress to protect more of our embassies abroad, the Marine contribution to the special operations component, Marine Cyber forces, and SPMAGTF's assigned to support multiple COCOMs. Marines assigned to Marine Special Operations Command and Marine Forces Cyber Command continue to significantly contribute to the needs of the COCOMs through specialized capability sets and as enablers for the joint force.

In order to meet COCOM requirements, the Marine Corps will sustain a D2D ratio in the active component force of 1:2 vice a more sustainable D2D ratio of 1:3. That is the fundamental difference between an optimal force structure of 186,800 Marines and 182,000. The Marine Corps has some high demand/low density units that maintain a current D2D ratio of less than 1:2. The Marine Corps will continue to provide ready forces to meet COCOM demands, but we are carefully assessing the impact of reduced D2D ratios on our training and quality of life.

Facility Investments

The President's budget for fiscal year 2016 funds 81 percent of the OSD facilities sustainment model requirement for the Marine Corps (an increase over the fiscal year 2015 level). The OSD guideline is to fund 90 percent of the requirement. We remain aware that underfunding facilities sustainment increases the rate of degradation of Marine Corps infrastructure, which leads to more costly repairs, restoration and new construction in the future.

Our installations are critical to our ability to train forces and be ready. They provide our training ranges and care for Marines and their families. However, we are forced to take risk in sustaining current infrastructure in support of operational readiness. With the help of Congress, the Corps has made significant progress over the last 8 years in replacing old, unsatisfactory buildings. Our MILCON is now focused primarily on new platforms and PACOM force relocation efforts.

The most important mission of our installations is to enable operating force readiness. We do this by being responsible stewards of land, air and water resources, and by being good neighbors in our local communities. These conservation efforts maintain our valuable training ranges and much needed air and sea maneuver corridors. A consistent emphasis on community partnering and engagement creates good-will, enhances family quality of life and reduces encroachment risks to our bases and stations. Congressional support and community partnering have resulted in the addition of training areas at the Townsend Bombing Range in Georgia, the Chocolate Mountains Aerial Gunnery Range in both Arizona and California, and the Marine Corps Air Ground Combat Center in California. We are also making great strides in reducing energy consumption on our bases and stations. By lowering utility use we are reducing costs, protecting the environment, improving the resiliency of energy-dependent infrastructure and ultimately enabling operational readiness.

Equipment Modernization and Innovation

For the last 14 years, the Marine Corps has focused our resources on providing the Marines what they need for the current fight. Readiness remains our #1 priority to meet our national security responsibilities; however, our focus on the current fight coupled with our declining budget, has forced the Marine Corps to make difficult choices and reduce investment in modernization to maintain current and near term readiness. In today's fiscal environment, the Marine Corps is investing only in essential modernization, focusing on those areas that underpin our core competencies.

Though emphasis is placed on new or replacement programs such as the ACV, JLTV, CH-53K and JSF, much of our modernization resources are focused on improving the capabilities and extending the life of current systems in order to fill the capabilities gaps that can be exploited by today's threats. These modernization efforts span from our AAV's to our current legacy aviation platforms.

In order to balance modernization across the capabilities of the MAGTF, our top priorities for recapitalization and upgrades are the ACV and the F-35B. Programs like ACV 1.1 with science and technology efforts for high-water speed, AAV survivability upgrades, Network On-The-Move (NOTM), Ground/Air Task Oriented Radar (GATOR), JLTV, and aviation platforms such as the MV-22, CH-53K, and F-35B are required to modernize capabilities and provide the technology required to dominate our adversaries.

Modernization consists of three elements: development of new technologies, the procurement of new capabilities, and investment in legacy systems. An over commitment in one element creates missed opportunities in another. The Marine Corps is investing heavily in legacy systems partially due to the time required to recapitalize needed capabilities. This necessary allocation with limited resources in turn results in less investment in areas needed for a rapidly changing world (i.e. live virtual training, digital interoperability, and connectivity across Service components). For example, the subcomponent shortfalls and age of the AAV fleet has led to lower reliability and increased risk in operational mission profiles. The need for recapitalization of the 42 year old AAV is critical and the Nation cannot afford to gap this capability. The application of fiscal resources that would otherwise be focused on recapitalization and modernization is necessarily directed toward sustainment. Current maintenance for AAVs averages approximately \$575,000 per AAV, per year with future depot maintenance costs growing to \$700,000 per AAV in fiscal year 2016. This required allocation of precious resources works against our other modernization and recapitalization efforts.

For our legacy aircraft platforms, the focus is on modernization to keep them relevant in today's fight while providing a bridge to our aviation recapitalization efforts. Rapid procurement of these new systems is critical to solving both our serious current and future readiness problems. Reduced modernization investment has also

stretched our program timelines to the limit of their acquisition baseline. Any further extension of our program baselines could result in a Nunn-McCurdy breach and reduce industry interest in producing limited production items. We have also delayed the procurement of other major programs like CAC2S so that we now will not reach full operational capability until fiscal year 2022 vice fiscal year 2018.

Limited to essential modernization efforts, the Marine Corps forecasts critical issues due to underfunding in several areas including:

- Recapitalization of our 30 year old TRC-170 system needed to provide alternate communications networks in degraded spectrum contested environments.
- The Marine Corps' Composite Tracking Network resulting in the MAGTF's eventual inability to communicate with the Navy's network and participate in their Cooperative Engagement Capability.
- Our ability to maintain Joint Interoperability with other Services through the Tactical Communications Modernization (TCM) program.
- Continued underfunding of the Networking On-The-Move (NOTM) program leaving two thirds of our operating forces without the ability to conduct mobile networking in distributed environments. Failure to procure military satellite communications (MILSATCOM) kits for, all fielded NOTM systems, will result in continued reliance on expensive (leased) commercial satellite communications (SATCOM) services.

Modernization and innovation are more than just procurement programs. We must invest in MAGTF experimentation and test new tactics, techniques, procedures, gear and concepts that will allow us to meet future challenges. Inadequate resources toward modernization will further close the technological gap between our capabilities and our adversaries. Our adversaries continue to develop new capabilities seeking any technology overmatch in specific domains and functions. Increasingly capable threats, the proliferation of A2/AD weapons, and the aging of key material capabilities create challenges where we will pursue Science and Technology (S&T) to maintain our decisive technological advantage. We are maintaining our commitment to S&T, and we continue to look for opportunities to expand our efforts in this critical area.

SPECIAL INTEREST TOPICS

Marine Corps Force Integration Program (MCFIP)

Since January 2013, the Marine Corps has opened 5,998 previously closed positions to women. We now have 94 percent of our Military Occupational Specialties (MOS's) available to women. Some positions remain closed—mostly within infantry, artillery, tanks, and assault amphibian vehicle specialties. These specialties are the focus of ongoing Marine Corps research to establish occupationally specific, operationally relevant, gender-neutral physical standards.

The Marine Corps continues its deliberate, measured and responsible approach toward integrating female Marines into previously closed occupational fields to the maximum extent possible. As the Marine Corps has studied gender integration, we have remained committed to high standards and combat effectiveness—from recruiting and entry-level training (ELT) to performance in the operating forces.

During this effort, the Marine Corps has evaluated gender integration from ELT to full mission profiles as a complete ground combat arms integrated unit. Since this time last year, the Marine Corps has established the Ground Combat Element Integrated Task Force (GCEITF). The GCEITF is a gender-integrated, ground combat arms unit designed specifically to support the most in-depth, detailed study of the physical demands associated with ground combat and the associated physical performance standards as well as the physiological predictors of success. The results from the GCEITF research will inform the establishment of occupationally specific, operationally relevant, gender-neutral standards based on the required individual physical contributions to mission-oriented collective tasks.

The GCEITF along with our other research and assessment efforts will inform a recommendation on further integration to the Secretary of the Navy and the Secretary of Defense. That recommendation will be provided in late 2015.

Sexual Assault Prevention and Response (SAPR)

The Marine Corps' Sexual Assault Prevention and Response mission is to develop and manage an evidence-based program that eliminates sexual assault within our ranks and provides world-class care to victims. Since fiscal year 2012, the Marine Corps has expended more than \$16 million toward SAPR and special victim legal training initiatives.

The Marine Corps continues to see an overall positive trend in closing the gap between the actual number of sexual assaults and those that are reported. While

the prevalence of Marines experiencing Unwanted Sexual Contact (USC) dropped from approximately 3,300 in fiscal year 2012 to approximately 2,300 in fiscal year 2014, the Marine Corps has seen an 89 percent increase in reports during that same time period. Closing the reporting gap is essential to both tackling the problem and providing supportive services to victims.

The addendum to the SAPR Campaign Plan launched in 2012 was approved in April 2014 to build upon the positive momentum of the campaign thus far by extending the sustainment phase and incorporating additional tasks that strengthen SAPR capabilities. In July 2014, the Marine Corps released new training called "Step Up" that is designed specifically for junior Marines, our highest at-risk population for sexual assault.

The Marine Corps continues to improve victim services such as the credentialing and up staffing of SAPR victim advocates and the development of the Victims' Legal Counsel Organization, which has provided dedicated victim legal services to more than 680 clients including 388 victims of sexual assault. On the heels of positive indicators of SAPR progress, Headquarters Marine Corps' SAPR division is expanding its reach with an increased focus on prevention. Our goal is to eliminate sexual assault from our ranks. We believe that preserving the commanders' ability to lead in this area is a vital element of our continued improvement in this current issue.

Suicide Prevention

Each tragic loss to suicide has far-reaching impact on families, friends and our entire Marine Corps community. The Marine Corps embraces prevention efforts through a series of actions to foster hope and connection to those at risk for suicide. Community Counseling Services located on Marine installations worldwide increase access to care and assist Marines, attached Sailors and their families with navigating available support resources. The Marine Corps' Marine Intercept Program (MIP) uses licensed clinical providers in care coordination and outreach services for Marines who are identified as having suicidal ideation or have attempted suicide. The DSTRESS resource also provides phone, chat and Skype support 24 hours a day, 7 days a week, 365 days a year. The Marine Corps continues to support DSTRESS as a critical resource in suicide prevention.

Suicide prevention remains a priority for the Marine Corps, and we will continue to apply the resources necessary to combat this difficult issue.

Wounded Warriors

The Marine Corps' commitment to our wounded Marines and their families is unwavering. Since 2007, the Wounded Warrior Regiment has provided meaningful recovery and transition assistance to wounded, ill and injured (WII) Marines, Sailors in direct support of Marine units, and their families. Additionally, the WWR administers the Marine Corps' federally mandated Recovery Coordination Program, which seeks to integrate Marines' medical and non-medical care.

While the Marine Corps' reduced presence in Afghanistan will result in fewer combat casualties, non-combat injuries and illnesses will likely remain stable. In addition, instances of PTS and TBI will continue to increase due to delayed onset and as Marines often delay seeking help.

Our comprehensive capabilities create the optimal care to meet individual Marine's needs. These capabilities include: Recovery Care Coordinators, District Injured Support Coordinators, WWR Transition Specialists, WWR Liaison Officers and Wounded Warrior Hope and Care Centers. Our costs in personnel are more than just numbers. Ultimately, the cost of 14 years of war is calculated in lives. From March 2003 through 7 January 2015, 1,483 Marines have given their lives and 13,992 have been wounded in the service of our Nation. We remember their service and sacrifice and thank Congress for their continued support of our Wounded Warriors and their families. The Marine Corps will not forget the sacrifices our Marines and Sailors have made for the Nation.

Transition Readiness

The Marine Corps makes Marines, wins battles, and returns responsible citizens following active service. Every year, the Marine Corps returns approximately 35,000 Marines to the civilian sector. The transition from uniformed service to contributing members of America's prosperity as civilians is significant to the economic health of the Nation. The technical expertise that Marines have learned during their service has significant application value to the country in the civilian sector.

Our transition readiness program is designed to prepare Marines for transition to civilian life by preparing and connecting them with resources to successfully meet educational, employment or entrepreneurship goals. Implementation of transition readiness seminars (TRS) and separate "track options" classes that align Marines future personal and professional goals with hands-on application have created an

enhanced transition experience for Marines. In fiscal year 2014 and the first quarter of fiscal year 2015, TRS attendance exceeded 42,500.

In fiscal year 2015, Marine Corps Credentialing Opportunities On-Line (COOL) was launched. COOL is a credentialing awareness, information and resources capability for all Marines, translating their Military Occupational Specialties into career development credentialing opportunities during and beyond their service. A leading example of the 21st Sailor and Marine initiative, the establishment of Marine Corps COOL with the Navy also established the Department of the Navy (DON) COOL as a platform for the Navy/Marine Corps Team. DON COOL has, in turn, inspired an Office of the Secretary of Defense (OSD) initiative for a similar department-wide landing page for all the Services.

The Marine Corps also launched the Spouse Transition and Readiness Seminar (STARS) at all USMC installations in September 2014. This seminar addresses the transitional challenges and opportunities specifically for spouses as they prepare to transition with their Marines into the civilian world. STARS has been embraced by OSD as a model for other services to consider emulating.

We have fully funded transition assistance in PB16. Effective 1 October 2014, a new Personal Readiness Seminar (PRS) is being delivered to all incoming active duty Marines upon check-in at their first permanent duty station. PRS provides an overview of the Marine For Life cycle, including personal and professional development programs and services, and introductory personal finance topics.

CONCLUSION

The unpredictability of the future security environment facing our Nation today reaffirms the wisdom of the 82nd Congress—the United States must maintain a force-in-readiness. The Marine Corps remains that expeditionary force-in-readiness. We maintain a high state of readiness and remain postured for immediate crisis response across the globe. With the continued support of Congress, we will maintain balance across our pillars of readiness and deliver ready, relevant, and capable Marines and Marine Air Ground Task Forces to our Nation today—and tomorrow. During this period of budget austerity, we will set the standard for stewardship—every dollar will count. In the end, we will do what Marines have always done—innovate for the future, adapt to overcome, and always win.

Senator COCHRAN. Thank you very much, General. We appreciate your presence and your contribution to the hearing.

I want to recognize Senator Shelby. He was first and the next most senior in line.

SEQUESTRATION IMPACTS TO SHIPBUILDING

Senator SHELBY. Thank you, Mr. Chairman.

Secretary Mabus, the President's 2016 budget request funding for nine ships, you are very familiar with. How might sequestration affect funding for these ships? And what impact would that have on mission capabilities? And what specific steps are you going to take to protect shipbuilding from possible budget cuts? We understand we are dealing as appropriators up here, too, sharing the same challenge.

Secretary MABUS. Thank you, Senator.

Building ships is a very long-term process, very complex, and requires specific skill sets. If you miss a year building a Navy ship, you never make it up.

We are dealing today with decisions made 10, 15 years ago, in terms of what ships to build. And for that reason, as I said in my opening statement, I am going to do my utmost to protect shipbuilding. It is simply not reversible. If we miss a Navy ship because of lack of funds, and the next year we get more funds, we can't make it up.

However, having said that, as you protect shipbuilding and protect those numbers, because we do have to have that properly sized fleet, other things begin to break. Our readiness gets stretched.

The surge capacity gets stretched. Our forces are deployed longer, and for more hazardous missions.

To give you an example of how we are stretching today, in the early 1990s, we had a fleet of about 400 ships. We had 100 ships forward-deployed at any given time. Today, we have a fleet of about 280 ships, building to 300, but today it is about 280. We still have 100 ships forward-deployed.

So the specific actions I am going to take, in any budget decision, shipbuilding is protected until the very last, until the last dog dies. But doing that causes and exacerbates problems in many, many other places.

Senator SHELBY. Admiral, do you want to comment briefly on what it does, your inability to project force and so forth? If you don't have ships, you are in trouble, aren't you?

Admiral GREENERT. Yes, sir. It underwrites everything.

As the Secretary said, you can't recover. If you say you are not going to build a ship today, they take 6 or 7 years to build, sometimes 5, if you are lucky, if you have a multiyear. You can't make that up the next year because we have money.

So therefore, we will look at modernization, munitions, because we can recover from that more quickly, Senator.

Senator SHELBY. Secretary Mabus, it is my hope that the Navy will continue to equitably, whatever that means, distribute work between the two LCS shipyards. Could you describe to the committee the Navy's acquisition strategy through 2019 for the remaining LCS ships, number 25 through 32?

Secretary MABUS. Yes, Senator.

We have found that having two shipyards and having two variants of the littoral combat ship has been very helpful in a number of ways. One, it keeps competition in the program, and it has driven costs down considerably. Two is it gives us different capabilities. Each ship brings some unique capabilities and capacities that the other one doesn't. And third, we are able to train our sailors pretty much on common systems for these two ships without duplicating effort.

So for the ships through 2019, we plan to continue the 50-50 split between the two yards. And the Small Service Combatant Task Force, which we chartered and which came through, and which recommended some upgrades in lethality and survivability for ships past 2019, for ships through 52, we are hopeful that we can move that up some, that we won't wait until 2019 because it is a modification, not a new build. And it is our plan to keep procuring both variants, again, competitively, but both variants through the entire 52 buy.

Senator SHELBY. This is a high priority for the Navy, is it not?

Secretary MABUS. It is a very high priority.

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

Senator COCHRAN. Thank you very much, Senator.

I know the next Senator who came to the hearing was Senator Reed, and Senator Collins soon thereafter, so I will recognize Senator Reed first.

SUBMARINE SHIPBUILDING LESSONS LEARNED

Senator REED. Thank you very much, Mr. Chairman.

Gentlemen, thank you for your great service.

First, let me recognize the Chief of Naval Operations and thank him for an extraordinary career.

Thank you for your service, sir.

And, Secretary Mabus, I will see you Saturday in Quonset Point, Rhode Island, for the keel laying of the USS *Colorado*, one of our new attack submarines. I look forward to it.

And, General Dunford, I just got back from Afghanistan, and your extraordinary leadership is evident there in everything we are doing. So thank you very, very much.

The only thing I would say is, I have a feeling General Campbell occasionally has some fun when he sits down with the President. I don't think you can say that.

Mr. Secretary, one of the successful programs in shipbuilding has been the *Virginia*-class, under budget, ahead of schedule. Can you indicate some of the lessons that we have learned as we go forward to the next major submarine project, which is the *Ohio*-class replacement, and what your plans are?

NATIONAL SEA-BASED DETERRENCE FUND

Secretary MABUS. The first lesson we have learned is that if we can do a multiyear—and thanks to this committee and to Congress, we have been able to do that—our shipyards are able to buy material in economic order quantities. They are able to smooth out their workload. They are able to do the training and the infrastructure that they need.

Because of that, the contract that we signed last summer to buy 10 *Virginia*-class submarines over the next 5 years, we got 10 submarines for the cost of nine. We got a submarine for free, which is like having one of those little punchcards, although with a bigger return, in the end.

Going forward, in building the *Ohio*-class replacement, there are lessons we are learning in terms of technology. There are lessons we are learning in terms of how we build these submarines.

But regardless of how much we can drive the cost down of the *Ohio*-class replacement, regardless of what we can do to the schedule, if we don't either pay for this as a national program, or plus-up Navy shipbuilding to account for it, then it is going to have a very harmful, I can't stress how harmful the effects will be on either the fleet or everything else in Navy, and that includes attack submarines.

Senator REED. Mr. Secretary, last year, in the National Defense Authorization bill, we created the National Sea-Based Deterrence Fund, which the goal really was to, from a national perspective, help defray the cost of not just our seaborne deterrence, but subsequently, the rest of the triad, air and land. But we are now in the beginning of reconstituting our seaborne deterrence. I would hope that this committee will look very favorably on providing funds through that mechanism, which could be applied, to the point you made, which would be to supplement your shipbuilding funds.

Secretary MABUS. Senator, we very much appreciate the establishment of that fund, and we think that it is a great first step in that direction.

And I would point out that, historically, the first two times we built ballistic missile submarines, 41 for Freedom in the late 1950s, early 1960s, the *Ohio*-class from 1976 to 1992, Navy shipbuilding did receive pretty dramatic increases to account for that.

However, the increases were not enough to shield the rest of shipbuilding. And from 1976 to 1980, when we first began the *Ohio*-class, our fleet went down by 40 percent.

Senator REED. And just to underscore the point that this is a national asset. Basically, this is the most invulnerable part of our triad. The demand far exceeds the supply today even, Admiral Greenert, in terms of STRATCOM's needs to keep deployed and conceal these vessels. Is that clear to you?

Admiral GREENERT. Yes, sir. We have an alert and then we have a modified alert, and then we have a nonalert. So the nonalert is larger than we provide, but with agreement with STRATCOM, we provide alert and mod-alert. We have always met that requirement. It is a strategic requirement, as you said.

However, it is a fairly big demand signal, and the *Ohio* is getting older. The youngest *Ohio* submarine is 17 years old, so they are aging up. We really do have to make this change. It is physics and engineering.

Senator REED. Thank you very much.

My time has expired. Thank you, Mr. Chairman.

Senator COCHRAN. Thank you, Senator.

Senator Collins.

SHIP MULTI-YEAR CONTRACTING AND SEQUESTRATION IMPACT

Senator COLLINS. Thank you, Mr. Chairman, and thank you for holding this important hearing.

As the consideration of the budget moves forward, I look forward to working with you, Mr. Chairman, with the ranking member, and all of the members of this subcommittee, to achieve the goals of avoiding the terrible effects of sequestration that we have heard described today, and also to achieve an outcome that is consistent with longstanding commitments, including what is known as the 2002 swap agreement that sustained the two shipyards in the large surface combatant industrial base. And I look forward to working with you on those issues.

Turning to my questions for today, Mr. Secretary, I was very impressed when I heard your track record of placing a large number of ships under contract, I believe you said 70, within the constrained budgets that you have been provided with during your tenure as Secretary.

One of the ironic aspects of sequestration is that it could actually increase your cost per ship or for a submarine, as well. Could you explain the importance of the multiyear contract to holding down the cost per ship, and what the impact of sequestration would be on your ability to have cost-effective multiyear contracts, whether it is the 10 DDGs or the submarines that you described with Senator Reed.

Secretary MABUS. Thank you, Senator. As I described to Senator Reed, those multiyear buys are some of the most effective weapons in our arsenal, in terms of bringing costs down, in terms of keeping the industrial base stable, in terms of allowing industry to do the

things they need to do, the same thing with block buys on the littoral combat ship.

If sequester occurred, one of the dangers is that you may break those multiyears. If you do, the ironic and awful result is you get fewer ships for more money. So you would end up paying more, but getting fewer ships in return, because you simply can't plan the way shipyards need to. You can't buy the material in the quantities that they need to. You can't do the training in the way that they need to. We can't give them some assurances that they need.

Again, I will do everything in my power to protect shipbuilding and to protect these multiyears, because it does protect not only the industrial base, not only the Navy, it protects the taxpayers, because of how we are driving these costs down.

Senator COLLINS. Thank you. That is one reason I think sequestration, in addition to being such a blunt instrument, is such a mistake, because it actually ends up, as you said, with our paying more for fewer ships.

DDG-1000 PROGRAM

Admiral Greenert, first let me thank you for your many trips to Maine. I know that it has meant a great deal to the workers at Bath Iron Works when you toured the DDG-1000.

One of the advantages of this ship is that it requires a greatly reduced crew size. At the time when the Pentagon is very concerned about personnel costs, that is significant.

There are other capabilities that are going to be particularly useful to the Navy, which I understand is likely to base all three of the DDG-1000s in the Asian-Pacific region.

Could you enumerate some of the advantages this cutting-edge destroyer will give you?

Admiral GREENERT. Yes, Senator. Thank you.

Firstly, as you said, the crew is one third, so that is about 150 versus a cruiser today of close to 450, right off the bat.

The power required to run the ship and all of its systems is only 50 percent of the capacity of the ship. So this thing can grow as we get more payload. It has tremendous growth.

It is radar-evading, as they say. It is stealthy. So on radar, it looks about the size of a tugboat, if you would imagine.

And then, of course, there is an acoustic element. If you are under the water and you are listening to it, it does not sound like a cruiser or a destroyer. It sounds like a very, very small craft. So there is another evading piece.

It has a tremendous cruise missile capability, anti-air capability. It has dual-band radar. That means it can track ballistic missiles while protecting itself from cruise missiles, that dual band.

It has a gun that goes three times as far, right now about 70 miles versus the best we can do today is about 15 miles. So that is five times, excuse me.

It goes on, Senator. This thing is a quantum leap in capabilities.

Senator COLLINS. Thank you, Mr. Chairman.

And thank you, Admiral, again, for your service to your country.

Senator COCHRAN. Thank you.

Thank you, Senator, for your contribution to the hearing.

Senator COLLINS. Thank you.

Senator COCHRAN. Senator Schatz.

Senator SCHATZ. Thank you, Mr. Chairman.

Secretary Mabus, Admiral Greenert, General Dunford, I appreciate you being here today, and I share the concerns of the members of the committee and the people at the dais about the effects of sequester on the Navy and Marine Corps. It is going to undermine our ability to commit to our strategy in the Asia Pacific, and it will hurt our sailors, marines, and their families.

USMC ASIA-PACIFIC REALIGNMENT

General Dunford, I want to discuss the realignment of the Marines from Okinawa. This is a major part of our rebalance in Asia. Moving the Marines from Futenma is consistent with the wishes of the people of Okinawa. And in my view, it is part of how we continue a strong, lasting security alliance between the United States and Japan. And a more distributed laydown gives the Marine Corps some strategic flexibility in the Pacific.

I do have some concerns about the cost of the proposal to move the Marines to Guam, and I know you are in the middle of a process working to cut costs.

Could you compare for the committee the cost of training and basing marines on Guam with the cost of training and basing them in Japan, Australia, Hawaii, elsewhere?

General DUNFORD. Senator, thanks for that question.

First, I have been involved in the Pacific laydown off and on for the last 10 years. When I first started to work the relocation to Guam, the cost was actually more than twice of what it is today. It is now down at around \$8 billion, which the Japanese pay a significant part of that.

So we have worked very hard. I think a lot of that comes from redesigning the plan, and a lot of that comes from collaboration between the Air Force, the Navy, and the United States Marine Corps, in order to do that.

I can't give you, right now, but I will take for the record, the specific cost comparisons between each of those locations. Although what I can tell you today is that, as a result of a lack of training opportunity on Okinawa and mainland Japan, we actually relocate our training throughout the Pacific anyway. So much of the cost for training, Senator, really comes from moving things and moving equipment to training locations. We actually experience many of those costs today.

[The information follows:]

The cost of training and basing out of the continental United States (CONUS) is dependent on a number of factors including: the number of Marines and their associated training requirements, area cost factors, and host nation contributions. The varying sizes of the Marine Air-Ground Task Forces and unique training environment of each location render direct cost comparisons very difficult to achieve. As the initiative to relocate Marines off of Okinawa has matured, the Marine Corps worked to balance cost, training capacity, and other factors to revise our requirements. The 2012 laydown adjustments to the Guam master plan reduced the footprint in Guam to ~4700 Marines, with an even steeper reduction in dependents from ~8,000 to ~1700. It also changed the nature of the force on Guam from one of a primarily permanent change of station, to that of a rotational force. The distributed laydown relocates 9,000 Marines from Okinawa, to Guam, Australia, Hawaii, and a small number to CONUS.

The Guam master plan, delivered to Congress last spring, placed costs for Guam at \$8.7 billion—a bill which is shared with the Government of Japan (\$3.1 billion)—a significant reduction from the initial estimate of nearly \$19 billion. Additionally, the Guam relocation will provide for robust training opportunities for Marines permanently and rotationally assigned to Guam as well as enhanced training opportunities during regional exercises. The Hawaii master plan, which is in development and will be delivered to Congress upon its completion, will provide an initial planning estimate for costs to relocate 2,700 Marines from Okinawa to Hawaii. The rotational force in Darwin is a phased build up to 2,500 Marines. Department of State and Defense negotiations are ongoing to determine facility cost and cost share arrangements with the Government of Australia.

The Guam master plan also includes a robust training capacity for PACOM forces in the Commonwealth of the Northern Mariana Islands. This joint training range will fill current PACOM training deficiencies and will allow PACOM to conduct bilateral and multilateral training with partner nations on U.S. soil, a key component of our regional engagement objectives. The nature of the requirements for training and dispersion throughout the Pacific have informed the decisions for the laydown and driven the costs.

One of the things that will be available at Guam and in the Northern Marianas, in general, will be training facilities that will meet our aviation requirements, which are going to be conducted in that area anyway, due to constraints up in mainland Japan and also some live-fire ranges and so forth that will better support our overall Marine Air-Ground Task Force training.

Senator SCHATZ. Thank you, General. And on the total number of marines on Guam, the number I think briefed to Congress last year was 5,000, down from 8,000. Can you tell me how you got to the 5,000 and whether that number is now firm, or do you anticipate that it could float up or down?

AMPHIBIOUS LIFT CAPACITY AND REQUIREMENTS

General DUNFORD. That number is correct, Senator, first. It is 5,000; 3,000 of them are rotational forces; 2,000 are permanent personnel.

We got to that number by looking very carefully at the laydown, meeting the Pacific Commander's desires for resilience, both politically and operationally. So it really is part of an overall laydown that includes Australia, it includes Guam, it includes mainland Japan, Okinawa, Hawaii. And they are all together in a package.

So we think that the size of the Marine Air-Ground Task Force there is integrated with the overall strategy that supports the Pacific Commander.

Senator SCHATZ. Thank you. And in your judgment, is there sufficient lift capacity to support this laydown plan?

General DUNFORD. Senator, at this time, there is not. That is one of our major concerns, and that is something we are working very closely with the Secretary and the Chief of Naval Operations, as well as Transportation Command, on.

Senator SCHATZ. Okay, thank you.

Secretary Mabus, I have a question about credentialing of your sailors. I know your first priority is to make sure that your sailors and airmen are prepared to prevent and, when necessary, win wars. But there has been a discussion increasingly about dual credentialing, so that when your sailors retire, they are prepared to enter the Merchant Marine opportunities that are available.

TRANSITION AND MILITARY CREDENTIALING PROGRAMS

Can you talk a little bit about the DOD's military lifecycle transition model, and talk about how we can move forward and make sure that your sailors have opportunities in the private sector, if that is what they want to pursue?

Secretary MABUS. That is one of the most important things that I think we are doing, Senator.

Number one, the transition, both in the Navy and in the Marine Corps, we try to start a transition a year out, so that we make sure that people know what is available, make sure that they get the training, make sure that they get the information that they need to go through it.

We have different tracks you can go down, whether to get more education, whether to become an entrepreneur, whether to get a trade certificate. This interoperability, the dual credentialing, things like Merchant Marine, things like EMTs for our corpsmen, nurses, things like that, we have actually done a good bit of that. And I know we are working hard to make sure that people can take the skills that they have learned, the leadership that they have learned, to the civilian sector.

Senator SCHATZ. Thank you.

Senator COCHRAN. Thank you, Senator.

The distinguished Senator from Missouri, Mr. Blunt.

TACTICAL AVIATION PROGRAMS

Senator BLUNT. Thank you, Chairman. Thank you for holding this hearing.

Admiral Greenert, I understand that you are reviewing the tactical aviation inventory. I think last week in a House hearing you talked about this and how it might relate to a couple of planes that we make in our State.

Can you talk a little bit about the Super Hornets, as they may fill a gap here or not? And then any comments you want to make about the electronic attack aircraft, the Growler, I would like to hear that.

Admiral GREENERT. Yes, sir, Senator. The situation is, we are in the middle of a transition from what we call the legacy Hornet, that is the A through D, to the Super Hornet, the E/F. That transition requires that we retain a certain number of the legacy Hornets, but they are old. They were built to fly 6,000 hours. They are well beyond that. We are trying to get them out to 10,000 hours.

We put this program in place 3 years ago. There were caveats. How complicated was it going to be? What kind of skill did we need? And we assumed the depots would all be opened with skilled workers. Then sequestration hit, and we found as we are opening and looking at these A through Ds, there is more corrosion. It is more complicated than we thought. It is taking longer.

In the meantime, they are not getting through the depots and out into the fleet. They represent about 20 percent of the fleet. The 80 percent are the Super Hornets. So we are using them up more than we originally intended. A great aircraft, it is a great aircraft.

So as we look out into the future, we say, hey, we are using these up more than we thought. We have to look out ahead to the hours

on the Super Hornet, because this is a piece of our strike fighter package, our enterprise into the 2020s and 2030s, as we bring in the Joint Strike Fighter.

So here's the conundrum. Can we get these legacy Hornets out and in time, so that we don't wear out the Super Hornets prematurely? Balancing that becomes the deal, as I go through these next 3 or 4 years, where we will have the legacy Hornets.

So right now, we have a plan in place to get our way through this. But there are risks. And I just described the plan. There are risks to all of that. Can we get the artisans? Can we get the engineers? Can we get these Super Hornets through in time?

So we have a shortfall in Super Hornets. We do. And we are going to have to work our way through here in order to manage it.

Would we have bought more? It was a matter of a budgetary decision, an endgame to compare our TAC Air with the other requirements in the budget.

And I listed in my statement, regrettably, some of the risk we have been taking is in aircraft procurement.

To electronic attack, as I came before the committee last year, I said I am concerned we won't have enough electronic attack aircraft. The Growler is the Department's primary aircraft, the only aircraft in this area.

The committee responded. The Congress responded. And I thank you for that, Senator, for your part in that.

I requested that we get a study done this summer and unambiguously declare what the requirement would be. It didn't get done. It is in progress for this next year.

So, with your help, and the committee's help, we have what we need today. What I don't know yet, until we finish this study and get an unambiguous declaration, what will the electronic capabilities requirement be in the future.

Senator BLUNT. On the Super Hornets, do you have a sense of what your shortfall may be?

Admiral GREENERT. I think probably the equivalent of two or three squadrons, it might be. It could manifest to that. I have to see how that turns out.

Now, shortfall means that would be the ultimate, if you will, the sweet spot of the number we have. We can work through a certain number of shortfall, 70, 80, and we have done this before.

But the question remains, as we work through this legacy piece, how many hours are we using up on the Super Hornets that we didn't intend as we started this journey?

Senator BLUNT. When do you think that review will give you some more specific information, as to where you are, compared to where you thought you would be?

TACTICAL AVIATION PROGRAMS—DEPOT MAINTENANCE

Admiral GREENERT. The real issue becomes getting the legacy through those depots. In about 15 months, I will have a much better feel, because they are starting to pick up speed now, fortunately, as we go along.

But the world is getting a vote, as we say, and we are flying long missions overseas now into Afghanistan and even into Iraq and Syria. It is a long flight.

Senator BLUNT. Of course, I don't need to remind you, but keeping the line open here becomes critical, with no orders beyond what we put in on the Growler, and the Growler and the Super Hornet use that same capacity and facility.

I want to continue to talk to you about this, so when you have more information, I am sure the committee will be glad to hear it, but I would particularly be glad to hear more as that study develops.

Admiral GREENERT. Will do, Senator.

Senator BLUNT. Thank you.

Thank you, Chairman.

Senator COCHRAN. Thank you very much, Senator.

AMPHIBIOUS SHIP CONSTRUCTION PROGRAMS

General Dunford, while the current shipbuilding plan only calls for 33 amphibious ships, requests from combatant commanders call for up to 54 amphibious ships to meet operational demands. In light of this deficiency, do you believe it would be wise to accelerate the build plan of certain amphibious ships to ensure that we have the ships needed to execute the National Defense Strategy and meet operational readiness challenges?

General DUNFORD. Chairman, thanks very much for that question. I think what you did last year to help us, this committee, with the 12 LPDs, is a key part of trying to address that amphibious capability gap you mentioned. But not only accelerating that ship and then replacing the LSD, we are working very closely with the Secretary and the Chief of Naval Operations on a plan to do that, but also one of the things we are doing to mitigate that gap is using alternative platforms, the mobile-landing platform, afloat staging base. We now have the third one in place that will be available here in a couple years.

So alternative platforms are also a key part, as well as accelerating amphibious ships, chairman.

Senator COCHRAN. Thank you very much.

The Senator from Alabama.

Senator SHELBY. Thank you, Mr. Chairman.

LONG-RANGE ANTI-SHIP MISSILE PROGRAMS

Admiral Greenert, the President's budget for 2016 proposes accelerated acquisition of the long-range anti-ship missile, so that it can reach early operating capability by 2018 or 2019, is my understanding.

Could you discuss just briefly the importance of continuing to fully fund development of a long-range anti-ship missile, and what it means to the Navy, what it will mean to the Navy?

Admiral GREENERT. Thanks, Senator.

Senator SHELBY. It is cutting-edge technology, isn't it?

Admiral GREENERT. Yes, sir. It is.

Today, our primary cruise missile is the Tomahawk. She has served well for three decades. There comes a limit to what—it is

an air-breathing missile. That means it is not hypersonic. It doesn't go faster than the speed of sound.

The missile you described is what we call hypersonic. It is really fast. It is hard to target. When it reaches its target, it does a very high speed——

Senator SHELBY. It would be hard to stop, too, wouldn't it?

Admiral GREENERT. Come again, sir?

Senator SHELBY. It would be hard to intercept?

Admiral GREENERT. Very hard to intercept and evasive. So we need to move out in that regard.

Senator SHELBY. Okay.

LITTORAL COMBAT SHIP AVIATION ASSETS

Secretary Mabus, the USS *Fort Worth*, a littoral combat ship deployed to Singapore in November 2014, just a few months ago, has thus far successfully, it is my understanding, employed a mixed aviation detachment, which combines manned and unmanned systems.

Can we expect to see more mixed aviation detachments like this in the future? And are they the future?

Secretary MABUS. I think the short answer is yes to both of those questions. Yes, you can expect to see more of it. And yes, that is pretty much the future.

By combining that manned and unmanned craft on a single littoral combat ship, you get the best of both worlds. You get the fire scout, the unmanned system that can do very dangerous tasks and very long-term tasks that, if you put a person in the helicopter, you couldn't do.

By pairing that with an MH-60 helicopter, which has incredible antisubmarine capabilities, and antisurface, you do.

And we have carried out the first crew swap on the *Fort Worth* very successfully, and that is the first of the ships that will remain in Singapore. They won't be homeported there, but they will be forward-deployed there. We will reach four LCSs by 2017 that will be in that region full-time.

Senator SHELBY. It gives you a lot of firepower you wouldn't have, would it not?

Secretary MABUS. It gives you incredible firepower, incredible flexibility.

And the concern was that it needed to do what a frigate did. So when you put what a frigate does next to what the upgraded LCS does, that is why I renamed the upgraded LCS a frigate. It's the same ship.

Senator SHELBY. It just changes the game, doesn't it?

Secretary MABUS. It does, with speed and with lethality.

JOINT HIGH SPEED VESSEL REQUIREMENTS

Senator SHELBY. Thank you.

Mr. Secretary, one last question. The Navy in October 2008, we know that is 7 years ago, nearly, the Navy affirmed an 18-ship requirement for the joint speed vessel, JHSV. The Navy, I understand, is expected to put under contract the 11th one.

Where are you and where is the Navy on this now? Are you going to push for the 18 ships? What is going to happen? Or does a lot of it depend on what we do?

Secretary MABUS. Well, part of it, we took a look, I believe in 2010, and reduced the number from 18 to 10. That was done on what the combat commander needed and how we could move troops around.

Thanks to this committee, thanks to Congress, we got an 11th high speed vessel in 2015, which we very much appreciate.

We are going to keep a continuous look on that, because, as General Dunford said today, we don't have adequate lift, particularly in the Pacific. The joint high-speed vessel is one of the solutions to that. Now that we have our first JHSVs out in the fleet operating, not only to carry marines but also to do theater security cooperation, we have one in South America today, we will continue to evaluate the need for how many we need in the future.

Senator SHELBY. Thank you.

Thank you, Mr. Chairman.

Senator COCHRAN. The distinguished Senator from Maine.

Senator COLLINS. Thank you, Mr. Chairman.

U.S. NAVY SHIP REQUIREMENTS

Admiral, am I correct that when you survey the combatant commanders, that they actually tell you that you would need 450 ships in order to meet all of the military requirements that they have identified?

Admiral GREENERT. You are correct, Senator.

Senator COLLINS. So we need more of all kinds of ships and submarines in order to meet those military requirements.

What is the projected plan for where we would be on the number of ships 5 years from now?

Admiral GREENERT. Well, we will be at 304 ships in 2020 with the President's budget. And as you said, it is not just the numbers; is it the right kind of ship. So we are building the right kind of ships because we are doing multiyears for destroyers, the Swiss Army knife of the fleet. It does it all, our early Burkes.

And in submarines, we have to build two a year to get out of an inevitable divot. And, of course, the littoral combat ship, that is our small surface combatant. We have about half of the number that we need.

U.S. MILITARY FORCE REQUIREMENTS—AFGHANISTAN

Senator COLLINS. Thank you. That is very helpful.

General, you spent a great deal of time in Afghanistan as commander, and I thank you for that service. I noticed you were there for, I think, 14 months, which is a long tour of duty.

In your personal, professional opinion, should we have a residual force left in Afghanistan at the end of next year?

General DUNFORD. Senator, I believe we should. And the most important thing that we need is an effective counterterrorism partner in the region, in Afghanistan, in that particular region. We also need an effective counterterrorism platform, which Afghanistan would be, if we developed the kind of relationship that we are

working on now with the Afghans, as well as building their own capacity.

So I do think some residual capacity at the end of next year is going to be critical for us to protect our own national interests.

Senator COLLINS. And how many troops do you think is an appropriate number for that residual force?

General DUNFORD. Senator, I prefer to probably talk to you about that in private, at this point, because I know that my successor now is in the process of providing best military advice to the President, and I wouldn't want to publicly get out in front of the individual who is actually on the ground now working with that issue.

Senator COLLINS. I understand. Thank you.

Senator COCHRAN. The distinguished Senator from Alabama.

Senator SHELBY. I have concluded mine, Mr. Chairman.

Senator COCHRAN. The Senator from Missouri.

Senator BLUNT. Thank you, Chairman.

TACTICAL AVIATION MAINTENANCE REQUIREMENTS

General Dunford, back to planes again, how many F-18 aircraft do you have on the out-of-reporting status?

General DUNFORD. Fifty percent, Senator, of our F-18s right now are out of reporting. That is over 100 aircraft.

Senator BLUNT. Is there any comparative number to what would normally be acceptable there?

General DUNFORD. Well, we would seek to have somewhere around 80 percent of our aircraft available.

Senator BLUNT. As opposed to the 50 percent?

General DUNFORD. As opposed to 50 percent.

Senator BLUNT. What risk does that establish with only 50 percent available?

General DUNFORD. Senator, it is risk in a couple areas. First and foremost, it is risk in our ability to respond to a major contingency. That is one of the components. When I talked about the readiness of our forces that are home stationed, their nondeployed status or the nondeployed units and their readiness status, their ability to respond to a contingency in the Korean Peninsula or some other major adversary would be challenged as a result of the loss of those aircraft.

It also impacts our ability to train pilots to the right standards, because there aren't enough aircraft available on a day-to-day basis to be able to do that.

Senator BLUNT. And what are you trying to do to mitigate the problem?

General DUNFORD. A key piece of that, Senator, is what Admiral Greenert spoke about. As a result of sequestration in 2013, our depot maintenance was backlogged. That is one of the reasons—that is one of the major contributing factors to our out-of-reporting F-18s today.

So getting depots back up and operating and maximizing their throughput, which includes a more detailed approach to triaging aircraft to get them into the facilities and get them up more quickly, is one of the major things we are doing to try to accelerate that. And, of course, for Marine aviation, a key piece is accelerating the

F-35 and transitioning to the F-35, which is the future for Marine aviation.

AIRBORNE ELECTRONIC ATTACK REQUIREMENTS

Senator BLUNT. And one question just, Admiral Greenert, on that F-35 topic, back to the Growlers that are in process now. I believe you said last year that you thought that electronic product that the Growler produces was a key part of the future package that involved F-35s and that would be defense system-wide, not just Navy planes, not just Navy, but that would add an important electronic warfare component to an F-35 package.

Do I remember that correctly?

Admiral GREENERT. You did, Senator. The Growler with the pod, that is the real jammer, is the electronic attack capability for the Department of Defense from the air, tactical air.

Now, an F-35 by itself can provide for itself, if you will. But we go in as a package. We go in suppress, do the business, get access, and come back. So you had it right, Senator.

Senator BLUNT. Okay. Thank you.

Thank you, Chairman.

Senator COCHRAN. Thank you, Senator.

Are there other questions of the panel?

ADDITIONAL COMMITTEE QUESTIONS

Senator COCHRAN. In closing, then, let me thank our distinguished panel of witnesses for your testimony and your continued assistance to the committee.

We are grateful for your service to our Nation. We look forward to continuing a dialogue throughout the fiscal year 2016 in connection with the appropriations process.

If there are any additional questions from members of our committee, they will be submitted to each of you for your responses.

[The following questions were not asked at the hearing, but were submitted to the Department for response subsequent to the hearing:]

QUESTIONS SUBMITTED TO HON. RAY MABUS

QUESTION SUBMITTED BY SENATOR THAD COCHRAN

Question. The Navy's current sustainment plans for Reactive Skin Decontamination Lotion (RSDL) kits are at levels significantly below the Total Service Requirement (TSR) originally established by the Service. Although the DOD's Joint Program Executive Office—Chem Bio Defense (JPEO-CBD) initially provided the Navy a full inventory of RSDL decontamination kits (359,620 kits), it is my understanding that the Navy has not properly replenished its inventory. Nearly 100,000 of the RSDL kits provided to the Navy by the JPEO-CBD have reached their expiration date, but the Navy has only purchased 26,160 new kits. It is my understanding that by fiscal year 2019, all of the RSDL currently on hand in the Navy's inventory will have expired. Indications exist that the Navy intends to replenish less than half of the TSR-mandated kits. The Navy recently acknowledged that its sustainment plans for RSDL are below TSR, but stated that they are "employing innovative cost savings approaches, such as centralized sustainment, to optimize requirements and readiness."

How will "employing innovative cost savings approaches, such as centralized sustainment" ensure that Navy personnel have sufficient quantities of RSDL to protect them from chemical warfare attack? Has the Navy reduced its Total Service Requirement (TSR) for chemical warfare decontamination kits? What is the rationale for this reduction? Has the threat of chemical warfare attack diminished? What

would the Navy require to maintain its RSDL inventory to meet the Total Service Requirement (TSR) level?

Answer. Bottom Line upfront: The Navy is procuring sufficient quantities and effectively managing its inventory of Chem-Bio defense consumables to ensure all Navy personnel are adequately protected.

The Navy took delivery of 359,629 Reactive Skin Decontamination (RSDL) kits procured via the JPEO-CBD between fiscal year 2010-2012. During fiscal year 2013-2014, Navy purchased 18,040 new RSDL kits to replenish the centralized pool inventory under the Navy Centralized Sustainment Program. In addition, Navy requested and received 100,000 RSDL kits from the JPEO-CBD in fiscal year 2014. JPEO-CBD was able to support this request due to re-distribution of assets that became available due to the drawdown of U.S. Ground Forces in CENTCOM. This re-distribution supports Navy's Fleet requirement from fiscal year 2015 until 2nd quarter, fiscal year 2017.

Navy is efficiently utilizing its RSDL inventory and manages the RSDL kits through the Centralized Sustainment Program. RSDL sealed boxes are fielded to ships according to closest expiration date, and are stored in temperature controlled shipboard repair lockers until needed. Following a ship's return from deployment, these RSDL kits are inspected and returned to the Navy centralized pool. These efficiency practices extend RSDL lifecycle from 6 months to 5 years.

In fiscal year 2014, Navy reduced TSR for RSDL by 20 percent. This reduction was made possible through an assessment of the effectiveness of the Collective Protection System (CPS). Navy platforms outfitted with CPS have high personnel protection levels against Chem-Bio attack. Sailors assigned to ships equipped with CPS have the dual protection afforded by this system as well as individual protective equipment (IPE). For non CPS-equipped platforms, Navy has continued to maintain 100 percent fielding of RSDL kits. The threat of chemical attack has not diminished; Navy has maintained robust capability to defend against such an attack.

Starting in fiscal year 2017, the Navy will require \$2.8 million per year to maintain the RSDL inventory at the current TSR. The Navy will continue to maintain an adequate inventory of RSDL and other consumables necessary to protect personnel against CBRN attack. This will include service funding, OCO requests and request(s) to JPEO-CBD for asset redistribution.

QUESTIONS SUBMITTED BY SENATOR TOM UDALL

Question. Describe the role of the Navy's Chief Information Officer (CIO) in the development and oversight of the IT budget for the Navy. How is the CIO involved in the decision to make an IT investment, determine its scope, oversee its contract, and oversee continued operation and maintenance?

Answer. The Department of the Navy CIO provides overarching programming guidance for IT and reviews the department's IT budget prior to submission to OSD. The DON CIO reviews the business cases for all proposed IT investments and collaborates with the DON Deputy Chief Management Officer to develop the annual DON Organizational Execution Plan for IT, a business value review that identifies what IT investments the department will sustain, and which it will retire. The DON CIO is also a full participant in the DON Two Pass, Six Gate review process for all IT acquisition programs or programs containing significant IT components.

Question. Describe the existing authorities, organizational structure, and reporting relationship of the Chief Information Officer. Note and explain any variance from that prescribed in the newly-enacted Federal Information Technology and Acquisition Reform Act of 2014 (FITARA, PL 113-291) for the above.

Answer. The Department of the Navy Chief Information Officer's (DON CIO) authorities, position in the Department, and reporting relationship are those appropriate to a Military Department CIO per FITARA. The DON CIO ranks as a staff assistant to the Secretary and the Under Secretary. Though the office is aligned administratively as part of the Office of the Deputy Undersecretary for Management, the CIO has a direct line of communication with the Secretary on those matters required by law, regulation, and policy. The DON CIO is the DON's senior information management, information technology (IT), and information resources management official, and participates in the DON processes for approval of contracts for IT and for reprogramming of IT funds.

Question. What formal or informal mechanisms exist in the Navy to ensure coordination and alignment within the CXO community (i.e., the Chief Information Officer, the Chief Acquisition Officer, the Chief Finance Officer, the Chief Human Capital Officer, and so on)?

Answer. The Department of Navy Business Transformation Council serves as the senior governance forum for cross-functional management issues. The forum is chaired by the Under Secretary of the Navy/Chief Management Officer and includes the Assistant Secretaries of the Navy, Deputy Under Secretaries of the Navy, Vice Chief Of Naval Operations, Assistant Commandant of the Marine Corps and DON Chief Information Officer. Since its inception in 2009, the Business Transformation Council has effectively resolved a variety of management issues and is used to coordinate across functional areas.

To strengthen the coordination and integration between strategy, business operations, and information technology, in 2014 the Secretary of the Navy realigned the Chief of Business Operations, Chief Information Officer and Chief of Strategy and Innovation under the Deputy Under Secretary of the Navy (Management). This restructuring ensures information technology and business functions are properly aligned to the strategic goals of the Department of the Navy.

There are also a variety of informal mechanisms that are used to coordinate across functional areas. One example includes the Chief Management Officer's Advisory Group. This forum provides flexible options to address specific management issues and is comprised of Senior Department of Navy personnel, organized around a specific management issue. For example, the advisory group was used to establish comprehensive policy for accountable property management in the Department of Navy.

Question. According to the Office of Personnel Management, 46 percent of the more than 80,000 Federal IT workers are 50 years of age or older, and more than 10 percent are 60 or older. Just 4 percent of the Federal IT workforce is under 30 years of age. Does the Navy have such demographic imbalances? How is it addressing them?

Answer. At present, the demographics of Department of the Navy's (DON) civilian IT workforce closely tracks with the overall Federal workforce. With more than 14,000 members in the DON IT functional community, percentages are as follows: 46.7 percent are 50 years of age or older, 10.3 percent are 60 or older and 5.5 percent are under the age of 30.

The Department is actively engaged in utilizing special hiring authorities to attract, hire and retain employees in Information Technology as well as the field of Cyber Security. Of particular note is that although 57 percent of our IT workforce is age 50 or older, more than 40 percent of our workforce has 5 years of Federal civilian service or less. This is a clear indication that the DON is seeking out and bringing new employees into the civilian service. Further, the percentage of IT employees under age 50 is more than 40 percent workforce.

The DON's goal is to always ensure it has the right skills in the right place to meet its mission requirements. The DON remains focused on workforce planning initiatives, and more than 30 percent of our IT workforce is in lower-level training and developmental positions, receiving mentoring and guidance from more senior employees. This is an effective way to create and develop the future IT workforce of the Department.

Question. How much of the Navy's budget goes to Demonstration, Modernization, and Enhancement of IT systems as opposed to supporting existing and ongoing programs and infrastructure? How has this changed in the last 5 years?

Answer. The Department of the Navy's (DON) IT budget is split into Development/Modifications of IT systems and Current Services. For fiscal year 2016, approximately \$1.3 billion or 16 percent of the total IT budget supports development/modifications of IT systems. The remaining \$6.6 billion supports current services of existing and ongoing programs and infrastructure. Over the past 5 years, DON's development/modifications spending on IT systems has consistently decreased with every budget submission. This decrease can be partially attributed to the completion of major development programs over the last 5 years; programs that not only reduced legacy IT but left the development/modification stage and are now in sustainment.

Question. What are the 10 highest priority IT investment projects that are under development in the Navy? Of these, which ones are being developed using an "agile" or incremental approach, such as delivering working functionality in smaller increments and completing initial deployment to end-users in short, 6-month timeframes?

Answer. The top 10 highest priority Department of Navy IT investments are as follows. Note: This includes systems that are also in sustainment. Due to the mission impact and resources associated with these systems, they are considered top priority investments for the Department of Navy.

1. *Next Generation Enterprise Network (NGEN) Increment 1.*—NGEN is an enterprise network which will provide secure, net-centric data and services to Navy and

Marine Corps personnel and represents the continuous evolution of information technology at the Department of Navy. NGEN was developed using a Lowest Price Technically Acceptable (LPTA) contracting approach to ensure functionality was delivered in a timely manner.

2. *Consolidated Afloat Network Enterprise Services (CANES)*.—CANES will replace existing afloat networks and provide the necessary infrastructure for applications, systems, and services to operate in the tactical domain. The initial delivery of CANES meets initial or threshold capabilities but since CANES is a Commercial-Off-The-Shelf (COTS) integration program, it has been funded for regular, periodic technology refresh to mitigate obsolescence and emerging cyber threats.

3. *Base-Level Information Infrastructure (OCONUS Navy Enterprise Network (ONE-NET))*.—ONE-NET provides a fully integrated, interoperable and secure information technology (IT) infrastructure to our forward deployed OCONUS bases, stations, homeports and OCONUS/CONUS piers. ONE-NET was developed using an incremental Government Owned/Contractor Operated (GO/CO) contracting approach to ensure functionality was delivered in a timely manner.

4. *Multifunctional Information Distribution System (MIDS)*.—MIDS is a jam-resistant, secure, digital (voice/data) information distribution system enabling rapid integrated communications, navigation and identification for tactical and command and control (C2) operations. MIDS is being developed using the waterfall systems development life cycle approach.

5. *Navy Enterprise Resource Planning (Navy ERP)*.—Navy ERP was established to transform and standardize Navy business processes for key acquisition, financial, and logistics operations. Navy ERP was developed using a spiral acquisition approach to ensure functionality was delivered in a timely manner.

6. *Naval Tactical Command Support System (NTCSS)*.—NTCSS is a suite of applications supporting Navy and Marine Corps supply and maintenance activities, both ashore and afloat, in a common computing infrastructure. NTCSS manages non-tactical information resources, including logistics, maintenance, administrative, and supply management, to meet the force readiness and sustainment requirements of the Navy and Marine Corps. NTCSS is being developed using an agile approach to ensure functionality is delivered in a timely manner.

7. *Global Combat Support System-Marine Corps (GCSS-MC) Logistics Chain Management Increment 1*.—GCSS-MC is a portfolio of systems that supports logistics elements of command and control, joint logistics interoperability, and secure access to and visibility of logistics data. GCSS-MC is being developed using a spiral approach to ensure functionality is delivered in a timely manner.

8. *Common Aviation Command and Control System (CAC2S) Increment 1*.—CAC2S Increment 1 is a coordinated modernization effort to replace the existing aviation command & control equipment of the Marine Air Command and Control System and provide the Aviation Combat Element with the necessary hardware, software, equipment, & facilities to effectively command, control, & coordinate aviation operations. CAC2S Increment 1 is being developed using a phased approach to ensure functionality is delivered in a timely manner.

9. *Tactical Data Network-Data Distribution System (TDN-DDS)*.—The TDN-DDS augments the existing Marine Air Ground Task Force (MAGTF) tactical communications infrastructure to provide the MAGTF commander an integrated data network. TDN DDS acquires and fields COTS components in two increments, achieves Full Operational Capability during March 2015, and will go through periodic tech refresh.

10. *Enterprise Procurement System (EPS)*.—EPS will replace the legacy Standard Procurement System and provide contract writing capability to the entire Department of Navy. EPS is being developed using a phased approach to ensure functionality is delivered in a timely manner.

Question. To ensure that steady state investments continue to meet agency needs, OMB has a longstanding policy for agencies to annually review, evaluate, and report on their legacy IT infrastructure through Operational Assessments. What Operational Assessments have you conducted and what were the results?

Answer. Each year, the Department reviews its operational IT investments for business value, alignment with the overall architecture, return on investment, and efficiency & effectiveness. Based upon the reviews, investments are designated for either continued operation and sustainment or retirement. These designations are included in the DON Organizational Execution Plan submitted to DOD CMO to support the Department's request for certification of its IT funds. At latest count, the reviews have resulted in 337 investments being selected for retirement.

Question. What are the 10 oldest IT systems or infrastructures in the Navy? How old are they? Would it be cost-effective to replace them with newer IT investments?

Answer. Identification of the 10 oldest systems is less beneficial than understanding the comprehensive manner in which the Department of Navy (DON) assesses which systems should be replaced, not the least of which would be cyber security concerns and contribution to enterprise solutions. The DON continues to assess its IT systems and infrastructures through the budgeting process as well as through the acquisition process, using tools such as business case analyses to help inform decision makers.

The Department has been working to eliminate and reduce the number of IT systems and their related infrastructure. For IT investments, the DON does look at cost as a factor in the decisionmaking process, along with other aspects such as functionality, capability and cyber posture. The objective is to determine where best to invest resources to ensure the Department's IT enterprise is as effective and cyber resilient as possible. For example, the Next Generation Enterprise Network (NGEN) program has already absorbed numerous outdated IT systems ashore and is on track to transition in the entirety of the legacy Outside the Continental United States Navy Enterprise Network (ONE-NET)/Base Level Information Infrastructure (BLII) by the end of fiscal year 2017.

The Consolidated Afloat Network Enterprise Services (CANES) program is replacing and consolidating several legacy afloat networks and provides the necessary infrastructure for modern applications, systems and services to operate in the tactical domain. CANES takes advantage of Commercial-Off-The-Shelf (COTS) technology and was structured to incorporate periodic technology refresh cycles to mitigate obsolescence and emerging cyber threats.

In the business system arena, the DON fielded its Enterprise Resource Planning (ERP) system several years ago, which eliminated over 80 legacy systems. Finally, there is funding in the fiscal year 2016 budget to develop new IT systems, such as the future enterprise contracting system, aimed at replacing the old Standard Procurement System managed by OSD.

Question. How does the Navy's IT governance process allow for the Navy to terminate or "off ramp" IT investments that are critically over budget, over schedule, or failing to meet performance goals? Similarly, how does the Navy's IT governance process allow for the Navy to replace or "on-ramp" new solutions after terminating a failing IT investment?

Answer. Department of the Navy (DON) IT program cost, schedule, and performance are constantly monitored and regularly reviewed under the processes established by the Defense Acquisition System and the DON's policy for implementation and operation of that system. Deviations from baseline parameters are addressed with actions prescribed from the range available under that system—which includes termination if deemed appropriate by the Acquisition Executive. If a program is terminated, the capability requirement it was undertaken to answer still exists, and that requirement would have to re-enter the Joint Capabilities Integration and Development System for new program approval.

Question. What IT projects has the Navy decommissioned in the last year? What are the Navy's plans to decommission IT projects this year?

Answer. The Department conducts business case analyses each year as part of the development of the budget submission. The objective is to determine where best to invest resources to ensure the Department's IT enterprise is as effective and cyber resilient as possible.

The Navy's Consolidated Afloat Network Enterprise Services (CANES) program is replacing and consolidating numerous legacy afloat networks. These legacy systems/networks are end-of-service/end-of-life. CANES provides the necessary infrastructure for modern applications, systems and services to operate in the tactical domain. CANES takes advantage of Commercial-Off-The-Shelf technology and was structured to incorporate periodic technology refresh cycles to mitigate obsolescence and emerging cyber threats. To date, we have completed 19 CANES installations on 15 Unit Level platforms (e.g. CGs, DDGs, LSDs) and four Force Level platforms (i.e. 3 CVNs and 1 LHD), with twelve installations ongoing this year for another seven Unit Level and five Force Level platforms.

The USMC has retired or replaced a number of IT systems in the last year. These include:

- The Commanding Officers Readiness Reporting System was decommissioned and its functionality is now available within the Installation Statistics, Analytics, & Reporting (iSTAR) module of GEOFidelis. GEOFidelis is the USMC Installation Geospatial Information and Services program for Installation and Environmental geospatial products and services.
- The Non-Appropriated Funds (NAF) Electronic Point of Sale (EPOS) system was replaced by the Retail Point-of-Sale System (RPOS).

—The Tactical Hydrographic Survey Equipment was superseded by a new requirement, the Diver Reconnaissance Vehicle (DRV), which is the result of a requirements revalidation by USMC Combat Development and Integration.

The USMC will continue to retire and/or replace aging systems in the coming year, including: Mechanization of Warehousing and Shipment Processing (MOWASP), Automated Set Assembly (ASA) and Material Returns Program Marine Corps (MRP MC).

Question. The newly-enacted Federal Information Technology and Acquisition Reform Act of 2014 (FITARA, PL 113–291) directs CIOs to conduct annual reviews of their IT portfolio. Please describe the Navy's efforts to identify and reduce wasteful, low-value or duplicative information technology (IT) investments as part of these portfolio reviews.

Answer. The DON Deputy Chief Management Officer and the DON CIO collaborate on the department's annual Organizational Execution Plan (OEP). The OEP is a review of IT investments that considers their alignment with the DON Business Enterprise Architecture, business value, cost, return on investment, and efficiency and effectiveness. After also considering operational necessity for warfighter support, investments are designated for either continued operation and sustainment or retirement. The completed OEP is submitted to the DOD DCMO to support the DON's request for certification of IT funds.

Question. In 2011, the Office of Management and Budget (OMB) issued a "Cloud First" policy that required agency Chief Information Officers to implement a cloud-based service whenever there was a secure, reliable, and cost-effective option. How many of the Navy's IT investments are cloud-based services (Infrastructure as a Service, Platform as a Service, Software as a Service, etc.)? What percentage of the Navy's overall IT investments are cloud-based services? How has this changed since 2011?

Answer. In 2011 and 2012, there were a few small pockets of private cloud solutions being developed within the Navy. As with any emerging technology, cloud computing had to be put through the development and testing paces for our environment. Also, adjustments to our financial systems were necessary to capture the various categories related to cloud computing for our required IT investment reporting. At the same time, DOD was just developing cybersecurity requirements to ensure the security of our commercial cloud solutions.

We have increased our spending on cloud services each year since fiscal year 2013. Though it only represents less than 1 percent of our total IT investment, we are still in the pilot and early adoption stages of cloud computing. Most of our cloud investments to date have been in commercial pilots, private solution activity, and recently, DISA's cloud service. DISA published the first version of the DOD Cloud Computing Security Requirements Guide in January of this year. Prior to that, the DOD rule sets for cloud computing had not been established.

We are currently developing guidance and standardized processes to assist our mission owners, and we expect our cloud adoption to accelerate in the coming months as FedRAMP and DISA authorize more commercial cloud offerings.

Question. Provide short summaries of three recent IT program successes—projects that were delivered on time, within budget, and delivered the promised functionality and benefits to the end user. How does the Navy define "success" in IT program management? What "best practices" have emerged and been adopted from these recent IT program successes? What have proven to be the most significant barriers encountered to more common or frequent IT program successes?

Answer. The Department of the Navy (DON) defines "success" in IT program management as delivering IT capability within cost, schedule and performance parameters to meet customer/war fighter requirements. Clarity, specificity and stability of requirements are critical. Because IT programs are enterprise in nature with multiple stakeholders, effective governance and communication with a broad concurrence on objectives are essential given that requirements can evolve as new technologies become available or cyber threats emerge. The governance structure can ensure appropriate trades between cost, schedule and performance can be accomplished as necessary.

Three recent successful IT programs/initiatives include:

1. Department of the Navy Enterprise Software Licensing (DON ESL):

The Department of the Navy Enterprise Software Licensing (DON ESL) Program Office leads a joint Navy and Marine Corps strategic sourcing effort to consolidate, centralize and streamline the acquisition and management of DON ESL agreements and provide significant savings from previous years.

In support of the Department of Defense Chief Information Officer (DOD CIO) IT consolidation roadmap and DON CIO IT efficiency efforts, the Marine Corps

leverages the combined buying power of the Navy and Marine Corps to improve the DON's IT/cyberspace investment decision practices as well as enterprise-level evaluation, funding, management and tracking of current and future requirements for all enterprise-designated software vendors and products. Five agreements have been awarded to date with five more planned for award over the next 2 years.

One best practice is to resource DON ESL agreements as enterprise requirements vice funding on an individual user basis; identifying and receiving the funds from individual sources has been a barrier to previous efforts.

2. Next Generation Enterprise Network (NGEN):

Naval Enterprise Networks (NEN) Program Office manages the acquisition life-cycle of the DON's enterprise-wide IT networks. NEN's portfolio includes the Next Generation Enterprise Network (NGEN) contract, which delivers shore-based IT networks and related services to the more than 700,000 users of the Navy Marine Corps Intranet (NMCI), the world's largest purpose built network. NGEN also provides the Department's path to the Joint Information Environment. Although faced with exorbitant challenges related to the intricacy of the network and the existing Contractor Owned and Contractor Operated network model, in September 2014 NEN completed a seamless transition of NMCI assets and users being supported by the NMCI Continuity of Services Contract to the new Government Owned and Contractor Operated environment acquired through the NGEN contract.

The NGEN acquisition involved one of the most innovative, comprehensive, and complex Request for Proposals (RFP) ever written for an IT network. The 1,100-page RFP constituted a fundamental shift in business and service delivery model required that the government carefully de-compose and identify every element of the existing network into the underlying services, technologies, and processes utilized to acquire, manage, secure, and operationally support/maneuver the network. The NGEN contract award represented the first re-compete of the NMCI since its establishment 12 years prior, and will save DOD billions of dollars across the Future Years Defense Plan (FYDP), while improving operational IT capability.

The innovative acquisition strategy, based on a Lowest Price Technically Acceptable approach that maximized industry competition, will not only achieve the Navy's operational and acquisition objectives, but it will also reduce the cost to operate the Navy's core IT network by over \$1.3B across the FYDP—an incredible force multiplier in an era of declining budgets. Real savings generated through the NGEN contract can now be redirected to other DON priorities.

NEN managed the seamless transition of all NMCI seats to the new NGEN contract on schedule (01 October 2014). The NGEN contract transition was a significant achievement in the evolution and delivery of the Navy and Marine Corps' enterprise network. The transition was completely transparent to end-users and occurred without disruption or loss of service. Through careful planning and solid teamwork between PMW 205, the Naval Network Warfare Command, and service providers, the team successfully transitioned all users to the NGEN contract 90 days ahead of schedule, which allowed the DON to realize an additional \$60 million in savings (\$20 million per month).

3. Consolidated Emergency Response System (CERS):

Consolidated Emergency Response System (CERS) provides Marine Corps Installation Commanders an enterprise and integrated emergency dispatch center, supporting law enforcement, structural fire, and emergency medical resource coordination for day-to-day and emergency operations responding to All-Hazards incidents and civil mutual aid agreements. Marine Corps Systems Command and Marine Corps Installations Command established full E911 capability for all Marine Corps installations by end of 2014 (including overseas). This met DOD's E911 mandate following the Ft. Hood shooting incident of 2009 and was accomplished within the acquisition framework of a program funded in 2012. The post E911 fielding strategy is to continue to build upon the E911 capability with Computer Aided Dispatch, improved Fire Station Alerting and other capabilities that add to force protection services aboard Marine Corps installations worldwide.

The "best practices" that emerged and were adopted from this IT program success included efforts to aggressively guard against modified commercial-off-the-shelf (COTS) or custom implementation. The architecture was managed with tailored technical reviews that focused on the integration and non-developmental deployment of commercial components. This insures a complete specification defined by commercial practices and provides the most efficient means to sustain over the life of the program. Where COTS solutions are used, success is defined in terms of performance equivalent to local government solutions but capable of meeting DOD's

higher Cyber Security and interoperability requirements at costs competitive with civilian implementations.

The “most significant barriers” to IT program successes are tied to requirements. Lack of complete requirements and complete understanding of the requirements is a common occurrence so it is vital to have a tightly integrated team representing the developmental, requirements and customer perspectives on a project with a well-defined scope and objectives. Given requirements can evolve, it is key to develop good working relationships between the requirements, resource and acquisition communities so trades can be made between cost, schedule and performance as needed. In the case of E911 these relationships allowed the basic services to be provided with the expectation that incremental improvement to force protection capabilities will be made through supplemental fielding efforts.

Question. Terry Halverson, the DOD Chief Information Officer (CIO), has outlined a vision for DOD use of cloud computing that empowers the military departments and components to procure their own cloud computing solutions. How will the implementation of this transition to cloud computing be rationalized across the Navy to ensure that common standards, data portability and other enterprise-wide issues are properly managed and addressed?

Answer. The Department of the Navy’s cloud transition is being led by the DON CIO, which is developing a data-centric cloud strategy that will be implemented and managed in accordance with DOD CIO guidelines. To ensure common standards and portability are properly addressed, the DON Data Center Consolidation Team will be realigned under the Program Executive Officer, Enterprise Information Systems (PEO-EIS), which has been given the primary role for executing the forthcoming Cloud Transition Plan. This re-alignment will enable better collaboration with the Navy Marine Corps Intranet (NMCI) and Consolidated Afloat Networks and Enterprise Services (CANES) program offices and take advantage of our existing enterprise network contracts and governance structures.

Question. The desert ship at White Sands Missile Range is an important national asset. Can you please outline the tests that the Navy hopes to conduct during fiscal year 2015 and 2016 utilizing the Desert Ship and White Sands Missile range? Which R&D budget lines support these tests?

Answer. The Desert Ship is a U.S. Navy asset located at White Sands Missile Range and operated by Naval Sea Systems Command (NAVSEA).

The tests that will be conducted are as follows:

Fiscal Year 2015

- Guided Test Vehicle (GTV)–2 (November 2014) was a developmental test for the STANDARD Missile 6 BLK 1A program (completed).
- Live Fire Test (LFT)–3 is a developmental test for the Naval Integrated Fire Control Counter Air (NIFC–CA) Project (June 2015). Several tracking exercises are being conducted to prepare for LFT–3.

Fiscal Year 2016

- GTV–3 is a developmental test for the STANDARD Missile 6 BLK 1A program.
- There is a LFT scheduled for September of 2016 for the NIFC–CA Project with several tracking exercises to prepare.

Desert Ship is not an element of the Major Range and Test Facility Base (MRTFB) and therefore is not funded through MRTFB and Test Resource Management Center (TRMC). Desert Ship is funded by the programs and projects that use it for testing.

The NIFC–CA Project is funded through Research Development Test and Evaluation (RDT&E) funding line PE 0604378N.

The SM–6 BLK 1A program is funded through Navy RDT&E, funding details are classified.

Question. What are the national security objectives that the Navy hopes to address in the tests outlined in the question above?

Answer. Navy flight testing at the Desert Ship supports the air and maritime security national security objective. The Navy utilizes the Desert Ship to conduct risk reduction and early developmental live fire testing on a controlled range prior to live fire testing aboard U.S. Navy ships. The Navy also utilizes system test data to assess mission capabilities in an overland environment.

Question. How does the Navy’s future budget support the upkeep and modernization of the desert ship and does the Navy plan to use the Desert ship into the future?

Answer. The Desert Ship is funded through the life of the NIFC–CA Project through PE 0604378N. Desert Ship is upgraded with the latest Aegis Combat Sys-

tem software load on an annual basis and will be modernized to accomplish ACB 16 testing to begin in fiscal year 2018.

Question. How does the Desert ship's testing capabilities translate to use in the fleet, and what are some of the successes that the Navy can highlight for the subcommittee?

Answer. The Desert Ship has been instrumental in performing risk reduction testing that led to fielding the NIFC-CA capability in fiscal year 2015. Past test events for the NIFC-CA project are as follows: Joint Land Attack Cruise Missile Defense Elevated Netted Sensor System (JLENS) Demonstration, LFT-1, and LFT-1A. The Desert Ship was also instrumental in the fielding of various STANDARD Missile variants by supporting early developmental flight testing; most recently SM-6 Block 1. Successful live fire test events for the SM-6 Block 1 program included: GTV 1-3, CTV-1, FTR-25, FTR 27-27A and D1J. Early developmental testing of SM-6 Block 1A is currently in progress: GTV-1 and GTV-2 have been successfully completed and GTV-3 is scheduled for fiscal year 2016.

QUESTIONS SUBMITTED BY SENATOR BRIAN SCHATZ

Question. I appreciate the attention that the Navy is giving to our shipyards. Our shipyard workers are the backbone of the fleet and the investments we make in that workforce will pay dividends to our readiness by ensuring that we can cut down on the Navy's maintenance backlog, reduce downtime, and get our ships and subs back out on deployment.

We can always do more to reduce the operating costs at our shipyards and make them more competitive. We can do this by finding creative ways to make use of cutting edge technologies to revolutionize their business operations, such as through 3D printing and other advanced manufacturing techniques, or by deploying renewable energy technologies that can cut their energy costs. I understand the Navy is already finding creative ways to reduce costs, including by using Energy Savings Performance Contracts at some of its shipyards.

Can you describe what the Navy is doing in this year's budget to help improve the competitiveness of our shipyards, including by making use of renewable energy and other cutting edge technologies to reduce operating costs?

Answer. The table below shows seven infrastructure investment projects at the Naval Shipyards that will improve energy efficiency by \$12.6 million.

Naval Shipyard	Project Title	Cost (thousands)
Norfolk Naval Shipyard	Energy—Exterior Lighting	4,057
Pearl Harbor Naval Shipyard & Intermediate Maintenance Facility	Shipyard Lighting Retrofit	2,876
Portsmouth Naval Shipyard	Energy and Building Repair, B74	1,332
Portsmouth Naval Shipyard	Energy and Control Upgrades B20	572
Portsmouth Naval Shipyard	Variable Refrigerant Flow (VRF) Cooling System	804
Portsmouth Naval Shipyard	Communications Hub B13	
Portsmouth Naval Shipyard	Retrocommission Submarine Preplanning Facility, M1	1,318
Portsmouth Naval Shipyard	Retrocommission Shipyard Command Center B86	1,722
Total		\$12,681

The Navy continues to investigate opportunities to pursue Energy Savings Performance Contracts at the Naval Shipyards to reduce energy use.

Likewise, the Naval Shipyards use a variety of process-improvement programs and initiatives to identify and implement innovative technologies. This includes formal programs such as Navy's repair technology (REPTECH) and the Department of Defense's corrosion reduction and collaborative initiatives, such as Industrial Communities of Practice and Warfare Center Innovation support. New technologies play a critical role in maintaining a capable and competitive industrial base as well as improving employee quality of work life. Below are some examples of recent and ongoing technology initiatives focused on improving Naval Shipyard industrial capabilities.

Exoskeleton Technology for Improved Industrial Ergonomics

This initiative will expand the use of commercial off-the-shelf (COTS) exoskeleton arms and use exoskeleton suits to improve the ergonomics of Naval Shipyard industrial work. This technology helps to remove much of the weight and strain from the

shipyard mechanic while performing strenuous work processes. This helps to reduce workplace injury and improve productivity.

High Pressure Water Jet for Improved Surface Preparation

This is a toolset developed and deployed to improve the coatings in ship tanks that have a history of coating failure. This technology saves money in the preparation of the tanks and greatly improves the life and performance of the coating.

3D Scanning for Ship Checks

This initiative uses 3D scanning technology to more effectively and efficiently perform pre-availability ship checks. Additionally, this initiative is pursuing the use of 3D scanning technology to allow for prefabrication of piping systems before a ship arrives for drydock work.

Additive Manufacturing for Training Mock-ups and Prototypes

The Naval Shipyards are using Additive Manufacturing for rapid prototyping and fit checking of parts and tools. Additionally, Additive Manufactured parts are being used to perform training on components before the actual work commences. This technology is saving time through reduced rework and material waste.

Electronic Technical Work Document (eTWD) Initiative

This initiative makes information technology (IT) systems available to mechanics and supervisors at the deckplate and thus allows for increased efficiency. It will standardize forms, instructions, and processes across the enterprise and increase productivity by enabling the non-stop execution of work.

Question. In my view, the Jones Act is essential to sustaining a robust U.S. flag fleet that can support our national defense. These U.S. flag vessels can be called on to support America's war fighters during wartime, serving as the Navy's auxiliary fleet to transport mail and other goods to troops in combat during times of war, allowing the Navy to save its limited cargo space for essential materials.

Do you agree that the Jones Act is important to the national defense mission?

Answer. The Jones Act is still relevant, important and supported by the Department of the Navy (DON). New construction of commercial ships in the U.S. benefits domestic shipbuilders and suppliers, and helps to maintain the Nation's shipbuilding industrial base. U.S. flag manning requirements under the Jones Act foster the demand for and safeguards a ready merchant marine force of qualified civilian mariners for contingencies. A strong domestic shipbuilding and repair industrial base helps maintain DON's ability to continue to build the future Fleet.

The Defense Strategic Guidance and Quadrennial Defense Review clearly rely on maritime assets in the execution of the National Security Strategy. The military strategy of the United States relies on the use of commercial U.S. flag ships and crews and the availability of a shipyard industrial base to support national defense needs. The retention of a minimum core of shipbuilders and ship operators, and their skills and capabilities, ensures availability in times of emergency.

The Jones Act supports the Nation's shipbuilding industrial base and maintains a national maritime infrastructure that ensures ample U.S. sealift capacity. U.S. flagged vessels provide employment to trained American Merchant Marine officers and seamen, who could be available to crew government-owned or civilian vessels in support of sealift efforts in times of war or national emergency. This availability limits the DON's need for procuring and maintaining comparable vessels in the government-owned fleet of cargo vessels, which could constitute a significant additional cost to the DON. The existence of a healthy U.S. maritime industry ensures the U.S. is not subjected to the dictates of foreign ship owners and operators, or foreign mariners when ships and mariners are needed to respond to contingencies such as disasters or in support of national security.

QUESTIONS SUBMITTED TO ADMIRAL JONATHAN W. GREENERT

QUESTIONS SUBMITTED BY SENATOR ROY BLUNT

Question. The fiscal year 2016 President budget proposes funding for only 100 Tomahawk Missiles, 96 short of the Minimum Sustaining Rate. Does the Navy agree that this results in an approximately 24 month production gap prior to the start of recertification in 2019?

Answer. The Navy does not agree. There is no production gap before beginning of the Tomahawk recertification program in fiscal year 2019. The Department of the Navy will procure 100 All-Up-Rounds (AUR) with appropriated fiscal year 2016 resources in combination with 47 AURs from fiscal year 2015 Overseas Contingency

Operations (OCO) resources (replenishment of Tomahawk combat firings during Operation Inherent Resolve) and up to 18 AURs via replacement-in-kind from the sale of excess USN Tomahawk Torpedo Tube Launch (TTL) AURs to the United Kingdom for a total of up to 165 tactical AURs in fiscal year 2016. The final deliveries of these 165 AURs is anticipated near the end of the 4th QTR of fiscal year 2018, and the Tomahawk Recertification program initiates in the 1st QTR of fiscal year 2019. Therefore, there is no production gap.

Question. What new analysis did the Navy conduct to determine that a production gap in 2018–2019 is more manageable than a 3 year production gap?

Answer. There is no production gap prior to the start of the Tomahawk Recertification program in the 1st QTR fiscal year 2019 since the last of the fiscal year 2016 All-Up Rounds (AURs) deliver in 4th QTR of fiscal year 2018. Helping to inform the overall programmatic and industrial base risks, the Defense Contract Management Agency conducted an independent Tomahawk Production Base Health Assessment. The results of the assessment confirm that the Navy's missile production and recertification program strategy has low to moderate risk. The production line, major spares procurements in support of recertification, modernization, non-recurring engineering, and the depot will maintain activity across the Tomahawk industrial base enabling a smooth transition from a production phase to a modernization/recertification/depot phase of the program.

Question. The fiscal year 2011 NDAA required all military equipment using GPS purchased after fiscal year 2017 to be M-Code capable. The M-Code enables such devices to operate in a GPS jammed environment. As the Navy looks at the recertification of the Block IV Tomahawks, will the Navy take advantage of this opportunity that will push recertified Tomahawks through 2034? If not, when will the Navy seek to upgrade Tomahawks to M-Code requirements?

Answer. The current Block IV Tomahawk has multiple navigation tools for precision navigation including GPS, terrain contour matching, and digital scene matching and correlation. Additionally we have high confidence in the fidelity of the Tomahawk GPS receiver in an anti-access/area denial environment. This information can be provided in a classified document if required. Threats are constantly evolving however, and we perform periodic assessments of our capability against those threats. Based on those assessments, the Navy may choose to incorporate an M-Code capable GPS receiver in Block IV Tomahawk at some point during the recertification depot process.

Question. The Navy recently tested the potential of synthetic guidance capability on the Tomahawk Missile. What kind of implications were derived as a result of this test and does the Navy plan to pursue some sort of seeker enhancement capability for insertion in the Tomahawk?

Answer. The synthetic guidance demonstration was an important initial step in understanding the viability of long-range communications for position updates of moving targets and extending the reach of Tomahawk beyond traditional fixed and re-locatable targets to maritime moving targets. This is consistent with our strategy to develop advanced capabilities by leveraging existing technologies.

We are in the process of completing an Offensive Anti-Surface Warfare (OASuW) Analysis of Alternatives (AoA) update and completing a Capabilities Based Assessment for the Next Generation Land Attack Weapon. The results of these analyses, and technology demonstrations such as the Tomahawk synthetic guidance test firing, will help inform the Department of the Navy's cruise missile strategy and long-term path-forward, which will include evaluating the requirement for a seeker.

Question. In the fiscal year 2015 President budget, the Navy commented that production of the JSOW C–1 was a focus because of low inventory. In fiscal year 2016, the Navy stated there was an adequate inventory of JSOW C and C–1s in inventory. Was the Navy able to make up the previous year's shortfall? If not, how do you justify the change in numbers?

Answer. Response is classified and will be provided via separate means.

Question. Previously, the Navy had planned to pause production of the JSOW, rather than terminate. Did the Nunn-McCurdy statute contribute to the termination of JSOW by OSD? Does the termination affect international orders or the fiscal year 2015 award in any way?

Answer. The Navy's plan to pause JSOW production in fiscal year 2017–2019 was due to higher Department priorities under the current fiscal environment. The fiscal year 2016 President's budget request was informed by the results of the fiscal year 2015 and fiscal year 2016 Naval Munitions Requirements Process (NMRP) which resulted in a reduced JSOW weapon inventory requirement and subsequent reduction in procurement.

The Nunn-McCurdy statute did not contribute to the termination of JSOW.

The production termination has not resulted in a negative effect on international orders or the fiscal year 2015 contract award. The decision has not affected current FMS Letters of Agreement (LOA) or the Department's plan to transition to sustainment after the completion of JSOW C-1 Operational Test and fiscal year 2015 procurement.

Question. Operational testing for the JSOW C-1 and Joint Strike Fighter is planned for this year. How does the Navy intend to support future requirements for the Net Enabled Capabilities critical for JSOW use without a funded program?

Answer. JSOW C-1's Operational Testing (OT) will occur this year on the threshold platform, the F/A-18E/F Super Hornet. The Joint Strike Fighter is an objective platform and will integrate JSOW in accordance with the JSF weapons roadmap.

Net enabled capabilities will not diminish due to reduced JSOW procurement. Termination of procurement does not mean the JSOW program is unfunded. The program is funded for sustainment and JSOW will be the first Net Enabled Weapon (NEW). The Fleet's net enabled capabilities are supported with the integration of numerous weapon systems, including JSOW, Small Diameter Bomb II, and Harpoon II+.

Question. Provide results of the Future Electronic Warfare Requirement study.

Answer. The Navy is conducting a study titled, "Joint Requirements for E/A-18G and Information Operations," which will be complete in April 2015. A previous study titled, "CVW E/A-18G Squadron Size," determined the Navy-only Growler requirements. The current study will identify Joint force E/A-18G missions and determine additional future Joint force missions for the E/A-18G. Each mission will be analyzed to determine the minimum and optimum number of E/A-18Gs required. The study will also assess the effect of Information Operations on the Joint fight and determine how these effects influence overall force structure in the context of both Navy and Joint force missions. Once complete, the study will be available for release.

QUESTION SUBMITTED BY SENATOR STEVE DAINES

Question. In 2010 the Administration announced a plan to refocus American attention to East Asia, in what would come to be known as the Asia Pivot. How has the Navy adjusted its strategy to execute this pivot, and how have nations in the region responded to these changes?

Answer. The rebalance to the Asia-Pacific was one of the drivers for the Navy's recently-released A Cooperative Strategy for 21st Century Seapower: Forward, Engaged, Ready. This strategy continues the Navy's effort to rebalance to the Asia-Pacific, and it broadens the aperture of our approach to encompass the Indian Ocean in recognition of its strategic relevance to this region. The combination of the region's economic importance to the world economy, its proximity to U.S. security interests, and its expansive maritime geography compel an increased U.S. naval presence to enhance regional stability and maintain our commitments to our allies and partners.

By 2020, Navy will deploy more forces to the Asia-Pacific (increasing ship presence from 52 ships today to about 65 ships) with plans to base approximately 60 percent of its ships and aircraft in the region. In support of the rebalance, we will also field new capabilities focused on regional challenges and preferentially deploy our most advanced warfighting platforms to the region. These include forward deploying an additional SSN to Guam, the most capable DDG and an additional CG to Japan, Mobile Landing Platform (MLP), Joint High Speed Vessel (JHSV), both Littoral Combat Ship (LCS) variants, MQ-8C, P-8A, EA-18G, upgraded F/A-18E/F, and E-2D. MQ-4C Triton high endurance unmanned aerial vehicles will operate from Guam in 2017.

The Navy will enhance and strengthen partnerships through exercises and training opportunities that build partner capacity and capability. Additionally, the Navy will develop its intellectual capital to sharpen our focus on warfighting missions that are most important in the region, and to emphasize the unique geopolitical and cultural understanding required.

These efforts, many of which preceded the recent release of the new Navy strategy, have helped strengthen cooperation with long-standing allies and continue to cultivate partnerships in the Indo-Asia-Pacific to reduce the potential for misunderstanding and discourage aggression. A recent example, the U.S. Navy joined over 20 Pacific navies—including the Chinese—in signing the Code for Unplanned Encounters at Sea (CUES). To improve our warfighting capability and enhance partnerships, capacity, and interoperability with our allies and partners in the Asia-Pacific, we host the biennial Rim of the Pacific (RIMPAC) exercise, which is the largest

multinational maritime exercise in the world. RIMPAC 2014 included participation from 22 nations, 49 surface ships, six submarines, and over 200 aircraft and 25,000 personnel. For the first time, China was among the participants. Exercises like RIMPAC enhance the global network of navies and allow us to build mutual understanding and practice how we fight with our allies and partners, so that we are better prepared to win should conflict arise.

Many of the partnership and capacity building activities outlined in the new strategy have been ongoing for years. While we cannot make direct links between these activities and specific actions of our partner nations in the region, there have been several increases in Asia-Pacific regional rhetoric challenging China's growing military strength and recent maritime sovereignty claims. The Philippines, Vietnam, and Indonesia have each reiterated their disagreement with China's maritime sovereignty claims. In 2014, the Philippines and United States signed the Enhanced Defense Cooperation Agreement (EDCA) for an initial term of 10 years. During this period, U.S. forces will be authorized access to agreed upon locations in the Philippines on a rotational basis to undertake security cooperation exercises; joint and combined training activities; humanitarian assistance and disaster relief activities. The EDCA also grants the U.S. operational control of agreed upon Philippines' locations for the purpose of altering, improving or constructing facilities. Malaysia recently offered to have U.S. Navy P-8 Poseidon aircraft fly out of East Malaysia, providing greater access to the South China Sea. Taiwan has continued to push developments of a new *Corvette* ship class and has openly discussed the possibility of indigenously producing new submarines. South Korea has continued development of JeJu Island as a primary naval base, and the Japanese government recently announced its intention to reassess its policies regarding collective self-defense, which would allow it to more fully participate in regional security. The Navy strategy's emphasis on the global network of navies concept, coupled with the current regional tensions between China and other Pacific states, will likely generate increased regional interest in future partnership and capacity building activities.

QUESTION SUBMITTED BY SENATOR PATTY MURRAY

Question. The President's budget request for fiscal year 2016 budget indicates an increase in the number of P-8A anti-submarine warfare aircraft that the Navy wants to procure. I'm pleased to see that the Navy is investing in this capability after a cut in last year's budget request.

Can you tell the subcommittee why it is so important to purchase the P-8As at the suggested rate this year?

Answer. The request for sixteen P-8A aircraft in the President's budget request for fiscal year 2016 returns the Navy's P-3C to P-8A transition plan to the optimal procurement profile required to complete the transition in the minimal amount of time, cost and warfighting risk.

The P-8A transition plan is based on a steady procurement profile of 16 aircraft per year in fiscal year 2014, 2015 and 2016. Buying aircraft at this rate enables the government to gain significant savings in per unit cost pricing under the Full Rate Production (FRP) schedule. It prevents future transition and warfighting gaps and returns the fleet to planned fatigue life utilization rates. This request also enables the prime contractor and its sub-contractors to execute and maintain steady state production schedules and other manufacturing efficiencies.

QUESTIONS SUBMITTED BY SENATOR JACK REED

Question. Can you describe the importance of the Virginia Payload Module program to ensuring our undersea strike capability?

Answer. The ability for undersea forces, with their assured access, to be able to provide clandestine strike capability is vital to the joint force as adversaries continue to invest in anti-access area denial systems. Undersea strike capability complicates adversary planning, creates ambiguity, and fosters uncertainty. However, retirement of the SSGNs beginning in 2026 reduces undersea strike capacity by 60 percent. Virginia Payload Module (VPM) will enable *Virginia*-class SSNs to cost effectively mitigate the loss of SSGN strike capacity, thus ensuring the Navy maintains required clandestine strike capacity. VPM more than triples the Tomahawk Land Attack Missile (TLAM) strike capacity of an SSN from the current 12 missiles to 40 missiles.

Question. Why is it so critical to get the Virginia Payload Module program into construction for the *Virginia*-class Block V submarines? If there are further reductions in funding, how would that impact the timeline to get this capability fielded?

Answer. Retirement of the SSGNs beginning in 2026 reduces undersea strike capacity by 60 percent. Integrating the Virginia Payload Module (VPM) within the Virginia-class SSNs is the most cost-effective means to minimize the loss of SSGN strike capacity. VPM will more than triple the Tomahawk Land Attack Missile (TLAM) Block IV strike capacity of a Virginia-class SSN from 12 to 40 missiles. Starting construction of VPM capable submarines in 2019 as part of Block V still results in a significant reduction in capacity by up to 50 percent until the full program of up to 20 VPMs are constructed. Any reductions in funding adds risk to completing the design to support an efficient construction start, potentially resulting in construction delays or delayed integration of VPM into the first Virginia-class Block V in fiscal year 2019.

Question. I understand the Navy is beginning to consider the feasibility of introducing the Virginia Payload Module program into the last hulls of Block IV. What is the reason for this and would it take additional funding in fiscal year 2016 to do so? What would the Navy and contractor team need to do to ensure that accelerating the Virginia Payload Module program installation could be accomplished without increased risk to cost and schedule of the overall program?

Answer. The Navy and its Virginia Payload Module (VPM) Design Agent, General Dynamics Electric Boat (GDEB), are currently assessing the feasibility of accelerating the VPM design to enable construction start in fiscal year 2018, the last year of the previously negotiated Virginia Class Submarine (VCS) Block IV fixed price incentive fee multi-year procurement contract.

The assessment is ongoing and is expected to conclude by Summer 2015.

QUESTIONS SUBMITTED BY SENATOR TOM UDALL

Question. What is the average time that ships are rotated in and out of deployment, and can you provide a breakdown by class of ship and homeport?

Answer. The Navy's service goal is a 1:2 operational deployment length to dwell ratio for all active duty units. For example, if a ship is deployed for 180 days the goal is to have them in a non-deployed status for a minimum of 360 days before their next deployment. The fiscal year-2014–2016 fleet dwell average is 1:3.

Fiscal year 2014–2016 approximate dwell ratios and average deployment length by class:

	Dwell	Deployment length
Aircraft Carriers (CVN):	1:4	8
Amphibious Assault Ships (LHA/D):	1:3	7
Cruiser Destroyer (CRUDES):	1:3	7
Ballistic Missile Defense Capable CRUDES:	1:3	8
Fast Attack Submariners (SSN):	1:3	6

We do not track dwell separately by homeport.

Through the Optimized Fleet Response Plan (OFRP), the Navy will be able to achieve a 7-month deployment goal which improves readiness and leads to a predictable cycle for maintaining, training and deploying our carrier strike groups and amphibious ships.

Question. How have increased demands on the Navy impacted readiness among sailors, and how are these demands impacting the Navy's operation and maintenance of ships?

Answer. Since 2013, many CSGs, ARGs, and destroyers have been on deployment for 8–10 months or longer. This comes at a cost to the resiliency of our people, sustainability of our equipment, and service lives of our ships. Year after year, the Navy has consistently provided more global presence than authorized and adjudicated by the GFMAR. This unbudgeted usage amounted to greater than 2,200 days in theater over that planned in 2013 and greater than 1,800 days in theater over that planned in 2014. We must operate the Fleet at sustainable presence levels in order for the Navy to meet requirements while still maintaining material readiness, giving ships time to modernize, and allowing them to reach their expected service lives.

The pace of operations has resulted in reduced time at home for Sailors and a lack of predictability in their family lives. Navy is addressing these challenges by transitioning to an Optimized Fleet Response Plan, which will enable the delivery of a more predictable FRP cycle, stabilized manning, more stable and predictable maintenance plan, enhanced quality of life, and fully ready forces trained to a single standard. Navy recruiting and retention remain strong, although retaining per-

sonnel in certain critical skills continues to present a challenge, particularly as the demands we place on Sailors and their Families remain high. The threat of looming sequestration, along with a recovering economy, is a troubling combination. We are beginning to see downward trends in retention, particularly among pilots, nuclear-trained officers, SEALs, and highly-skilled Sailors in information technology, Aegis radar and nuclear specialties. We are using all tools at our disposal, including special and incentive pays, to motivate continued service in these critical fields.

Assuming a stable budget and no major contingencies for the foreseeable future, the Navy estimates it is possible to recover from the maintenance backlogs that have accumulated from the high operational tempo over the last decade of war and the additional effects of sequestration by approximately 2018 for CSGs and approximately 2020 for ARGs, 5 plus years after the first round of sequestration.

Question. Are there classes of ships deferring maintenance more than others, and does this deferred maintenance potentially impact the safety of our sailors and their ability to carry out their missions?

Answer. The safety of our Sailors and ability to carry out assigned missions have always been prioritized, and we have made difficult decisions regarding deferral of life cycle maintenance. PB-16 with OCO fully funds the ship maintenance requirement, including life cycle maintenance reset of CVNs and surface force ships. With the maintenance requirement fully funded, no new maintenance deferrals are expected. However, a return to BCA-level funding would undermine our ability to complete all of the needed maintenance.

The life cycle maintenance reset requirement is a result of the backlog created during the late 1990s through 2009 which was a result of high Operational Tempo (OPTEMPO) after 9/11 and a focus on near-term readiness. Most of that backlog was developed on Cruiser/Destroyer (CRUDES) and amphibious ships, with a smaller amount on aircraft carriers. As a result, Navy is focusing reset efforts on CG-47, DDG-51, LSD-41/49, LHD-1/8, and CVN-68 classes.

Additionally, the sequestration reductions in fiscal year 2013 and continuing resolutions (which compelled us to reduce both afloat and ashore operations) further exacerbated ship and aircraft maintenance and training backlogs. While the Navy was able to reprioritize within available resources to continue to operate in fiscal year 2013, this is not a sustainable course for future budgets. The actions we took in 2013 to mitigate sequestration only served to transfer bills amounting to over \$2 billion to future years for many procurement programs—those carryover bills were addressed in Navy's fiscal year 2014 and fiscal year 2015 budgets.

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the additional effects of sequestration by approximately 2018 for CSGs and approximately 2020 for ARGs, 5 plus years after the first round of sequestration.

QUESTIONS SUBMITTED BY SENATOR BRIAN SCHATZ

Question. The Navy's Strategic Laydown and Dispersal (SLD) plan for 2015 proposes to homeport shift two Cruisers from Pearl Harbor to San Diego for their modernization. However, the Navy does not plan to homeport shift two Destroyers to Pearl Harbor to backfill these Cruisers, per the SLD plan for 2014 that was briefed to my office.

These decisions have strategic consequences. The loss of these Cruisers without the replacement Destroyers erodes ballistic missile defense (BMD) capability in the theatre. It is my understanding these decisions are not driven by Combatant Command requirements, but are part of the Chief of Naval Operations' plan to level-load the fleet to reduce the deployment time for sailors.

Pacific Command has raised concerns that due to budget cuts the services have not been able to provide adequate maritime coverage of the type we have traditionally needed in the Asia Pacific and that we are assuming risks in the theatre.

Do you believe that realigning Destroyers to reduce deployment time for sailors is strategically the right decision considering that it would mean reduced maritime coverage in important theatres, like the Asia Pacific?

Answer. The Navy is putting its most capable, technologically advanced and mission ready forces forward. There will not be a reduction in maritime coverage in the Asia-Pacific; in fact, the Navy is on track to meet its goal of basing 60 percent of the fleet in the Asia-Pacific region by fiscal year 2020. In support of the Optimized Fleet Response Plan (OFRP), the Navy decided not to backfill the Hawaii-based Cruisers with destroyers (DDG) in order to support the alignment of training, maintenance, and operations for Carrier Strike Group synergy. The Strategic Laydown and Dispersal process will continue to evaluate future force laydown based upon Fleet and Combatant Commander requirements.

Question. Are there other ways to meet your goals for sailor deployment and dwell time without reducing surface ship presence in the Asia-Pacific region?

Answer. The Navy is not reducing surface ship presence in the Asia-Pacific region. Navy's Optimized Fleet Response plan is the program of record, and its efficacy in meeting desired end states of predictability in operations and maintenance will enhance readiness and surge capability to meet area of responsibility demands.

Question. What risks are we assuming by having two fewer BMD-capable ships forward in the Asia Pacific? In your judgment, are these acceptable risks given the instability in the region and the potential anti-access/area denial scenarios that the Navy is concerned with?

Answer. The Navy is increasing the numbers and capability of our Ballistic Missile Defense (BMD) forces in the Asia-Pacific. Pearl Harbor experienced a one for one swap of USS *Lake Erie* (CG 70) and USS *John Paul Jones* (DDG 53), as the Navy's BMD test ship in fiscal year 2014. With the modernization of USS *Port Royal* (CG 73), Pearl Harbor will experience a net loss of one BMD ship, as USS *Chosin* (CG 65) is not BMD equipped. In the Forward Deployed Naval Forces (FDNF) Japan, there are five BMD ships assigned now (1 CG and 4 DDGs) and we will increase this capability with three additional BMD capable DDGs over the FYDP—for a net gain in BMD capability in the Asia-Pacific.

QUESTION SUBMITTED TO GENERAL JOSEPH F. DUNFORD, JR.

QUESTION SUBMITTED BY SENATOR STEVE DAINES

Question. What programs does the Marine Corps have in place, or plan on implementing in the future, that lighten and strengthen small-, medium-, and large-caliber platforms?

Answer. The Marine Corps continuously evaluates and improves the small arms capabilities that the individual Marine and units carry into combat to ensure that they are outfitted with the most reliable and relevant weapons systems available. Our small arms modernization strategy reflects a cost-conscious incremental approach to improve small arms accuracy, lethality, ergonomics and weight reduction in the near term, while looking to make larger gains in the same areas through pursuit of a next generation capability over the coming decade. The desired end state is improved lethality while maintaining, and ideally improving, the mobility of the individual Marine and, by extension, the Marine Rifle Squad and larger units. The Army is taking a similar approach, and the requirements and acquisition commu-

nities in both Services are sharing their ideas and continue to seek to collaborate where requirements and execution profiles coincide.

The following initiatives were begun in accordance with the above intent:

- Improved 60mm and 81mm mortar systems that utilize an improved alloy (Inconel), resulting in stronger barrels at much less weight, as well as lightweight bipods and baseplates through replacing steel with aluminum alloys. Weight savings for the 60mm mortar system is 9 lbs (20 percent reduction); weight savings for the 81mm mortar system is 17 lbs (19 percent reduction). The 60mm system was fielded in fiscal year 2013, and the 81mm system will begin fielding by early fiscal year 2016.
- Lightweight light/medium machinegun tripod that when fielded in fiscal year 2017 will provide a weight savings of 3.5 lbs (19 percent reduction).
- Pursuit of a shorter, lighter, and stronger barrel for light and medium machineguns that not only reduces weight of a single barrel, but precludes the need to carry an additional, spare barrel.
- Participation in the Army-led Modular Handgun System Program to provide the Warfighter a best value Modular Handgun System that features increased accuracy, improved ergonomics, and a higher degree of reliability/durability over legacy systems. The Marine Corps is participating to ensure the solution satisfies an anticipated follow-on life cycle decision to replace our current service pistols in the early 2020s.
- Participation on the Army-led effort to develop requirements for the next generation of squad weapons. Envisioned are an individual carbine, an automatic rifle, and a designated marksman weapon for the squad that utilize a systems approach to incorporate such future capabilities as fire control, integrated data and power, signature suppression, and an improved ammunition configuration. The goal is to field materiel solutions to these requirements in the mid to late 2020s.

Participation in the Small Arms Ammunition Configuration Study being conducted by the Army; this study will provide courses of action for ammunition configurations that will meet our small arms gaps in conjunction with the next generation of squad weapons.

SUBCOMMITTEE RECESS

Senator COCHRAN. The Defense Subcommittee will reconvene on Wednesday, March 11, at 10:30 a.m., and receive testimony from the United States Army.

The subcommittee stands in recess.

[Whereupon, at 11:34 a.m., March 4, the subcommittee was recessed, to reconvene at 10:30 a.m., Wednesday, March 11.]