

EXTENSIONS OF REMARKS

TWO CHICAGO ALDERMEN SUE
AUTOMAKERS FOR \$3 BILLION
DAMAGE IN AIR POLLUTION CASE

HON. ROMAN C. PUCINSKI

OF ILLINOIS

IN THE HOUSE OF REPRESENTATIVES

Thursday, September 25, 1969

MR. PUCINSKI. Mr. Speaker, two of our most distinguished members of the City Council of Chicago yesterday filed a \$3 billion damage suit against the three major automobile producers charging them with conspiracy to delay the research and development of air pollution control devices in their automobiles.

This unprecedented action was brought about by Alderman Thomas E. Keane, who is chairman of the finance committee and leader of the city council, and also Alderman Paul Wigoda, who is the majority whip in the city council.

I call this suit to the attention of my colleagues because it offers our beleaguered communities some hope for early relief from the mounting crisis of air pollution.

Alderman Keane and Alderman Wigoda have chartered a new course for communities all over this country to pursue. Both of these men have announced they want no personal financial remuneration and have stated that whatever damages are won by themselves in this lawsuit will be turned over to the city to step up its anti-air-pollution activities.

Both Alderman Keane and Alderman Wigoda are regarded as two of Chicago's outstanding attorneys and so this is not a suit based on either whim or caprice. It is a very carefully thought out legal action to bring the people of Chicago meaningful relief from the growing hazard of air pollution.

I am enclosing in my remarks today a story which appeared in this morning's Chicago Tribune outlining the basis for the suit.

I believe not only the people of Chicago but Americans throughout the Nation owe a debt of gratitude to Alderman Keane and Alderman Wigoda for their initiative and legal enterprise in helping chart an effective manner for dealing with air pollution. I expect many other communities to follow suit and I do hope that this action will impress upon Congress the need for even stronger air pollution legislation than we already have enacted.

I recall well the effort that I made on the floor of the House in support of an amendment to the Anti-Air-Pollution Act which would have prohibited the manufacture of automobile engines 8 years from now which emit air pollutants in excess of tolerable limits.

Aldermen Keane and Wigoda have alined themselves on the side of those who have fought stubbornly against the menace of mounting pollution.

It is my hope that in the wake of this action brought by these two distinguished

members of the Chicago City Council, the city of Chicago on its own volition will seek an injunction against the airlines for emitting the long trails of gasoline fumes from jet aircraft arriving and departing O'Hare Field. I have urged such legal action by the city of Chicago.

I also hope that this legal suit filed by these two distinguished aldermen will inspire more legal action against those who pollute Lake Michigan and also inspire Congress to enact my proposal, which would bar all dumping by the Corps of Engineers and others into Lake Michigan.

The Chicago Tribune article follows:

AUTOMOTIVE'S "BIG 3" SUED FOR POLLUTION—
TWO CITY ALDERMEN ASK \$3 BILLION IN
ACTION

(By Robert Enstad and Edward Schreiber)

Two Chicago aldermen filed a 3 billion dollar damage suit against three major automobile producers yesterday, charging that they have conspired to delay the research, development, and installation of air pollution control devices on their automobiles.

Ald. Thomas E. Keane [31st] and Ald. Paul Wigoda [49th] filed the suit, as private citizens, on behalf of all of the residents of Chicago, who, they say, have been damaged and harmed by the increase of air pollution in Chicago caused by the motor vehicles turned out by the three manufacturers.

"BIG THREE" NAMED

Named as defendants in the suit are the Ford Motor company, General Motors, and the Chrysler corporation.

The suit contends that the automobile manufacturers knew about harmful emissions from motor vehicles as early as 1952, but have delayed, up to the present time, equipping vehicles with adequate devices for controlling air pollution. The manufacturers are capable of doing so, the suit said.

AIR POISONS CITED

In the suit, filed in federal District court, the aldermen said most of Chicago's air pollution comes from automobile emissions. The suit contends that if the manufacturers had not agreed to the conspiracy, these pollutants would not be in Chicago air today.

Keane is Mayor Daley's floor leader in the city council.

A similar suit was filed in California by the justice department's anti-trust division in January, but President Nixon's anti-trust chief announced last week that a consent decree had been reached and the auto companies would not have to go to trial.

A group of liberal Democrats and Ralph Nader plan a protest because they say once the decree is signed, all government records against the auto manufacturers would be sealed from public view, putting a severe handicap on private suits such as that filed with the aldermen.

Automobile emissions, in 1965 alone, accounted for 2,250 tons of carbon monoxide, 359 tons of hydrocarbons, and 74.8 tons of oxides of nitrogen in the Chicago atmosphere, the suit said.

NUMBER OF VEHICLES

In 1968, the aldermen said, there were 942,959 automobiles, and 669,437 trucks and buses registered in Chicago. In addition, they said, 250,000 vehicles entered the city from other areas each day.

The conspiracy, according to the suit, consisted of the manufacturers agreeing among themselves to restrict publicity about air pollution control devices in order to eliminate competition in their research and develop-

ment. The suit said the manufacturers conspired to eliminate competition for patents on these devices.

The suit said that in 1961, the automobile manufacturers had agreed to delay installation of positive crankcase ventilation on new vehicles until the 1963 model year, even tho they were capable of the installation in 1962.

COST OF POLLUTION

Keane said yesterday that the cost of air pollution to the average Chicago citizen each year is \$84, and this doesn't include the damage to health, present or future.

Atty. Jerome Torshen, who filed the suit on behalf of the aldermen, said any damages received would be distributed to Chicago citizens who could prove damages caused by air pollution. This could take the form of laundry bills, health problems not caused by smoking, and property damage, such as paint on homes which has been dirtied by air pollution.

If the 3 billion dollars is awarded in the suit, he said, it would be turned over to the city to use in a program to combat air pollution. He said that neither he nor Wigoda want any financial gain.

Named as co-conspirators, but not defendants, in the suit are the Automobile Manufacturers Association, Inc.; American Motors corporation; Checker Motor corporation; Diamond T Motor Car company; International Harvester company; Studebaker corporation; Kaiser Jeep corporation; and Mack Trucks, Inc.

DALEY CHANGES MIND

Keane said it had been expected that Mayor Daley would announce the filing of the suit at his press conference Monday, but, at the last minute, he didn't. A press aide of Daley said yesterday the mayor had changed his mind about the announcement.

Keane said he hoped the suit would broaden the scope of a federal investigation of the automobile industry. He said he thinks the suit will make the manufacturers aware that "the public will no longer tolerate foot-dragging."

Court observers said the aldermen's suit was the largest they remembered ever to be filed in Chicago.

ADDRESS BY HON. MILLS E. GODWIN, JR., GOVERNOR OF VIRGINIA,
AT MEMORIAL SERVICE AT LOVINGSTON,
NELSON COUNTY, VA.

HON. HARRY F. BYRD, JR.

OF VIRGINIA

IN THE SENATE OF THE UNITED STATES

Friday, September 26, 1969

Mr. BYRD of Virginia. Mr. President, on Sunday, September 21, an unusual memorial service was held at Lovingston, in Nelson County, Va. The service gave expression to sorrow for those who lost their lives in Nelson County during the devastating floods which struck the area on August 19. The floods resulted from vicious storms on the fringe of Hurricane Camille.

More than 100 Virginians lost their lives in the flooding, many of them in Nelson County, one of the hardest hit sections of the State.

At the memorial service, the Honorable

Mills E. Godwin, Jr., Governor of Virginia, delivered a moving address. I ask unanimous consent that Governor Godwin's statement be printed in the Extensions of Remarks.

There being no objection, the statement was ordered to be printed in the RECORD, as follows:

REMARKS BY GOV. MILLS E. GODWIN, JR.

I have come to Nelson County many times to share joyous occasions with you, and now I come to join you in sorrow.

I come accompanied by a number of my official family from State agencies in the hope that if I cannot find appropriate phrases of comfort, our combined presence will speak for all of us.

We can usually find appropriate words to express our thoughts at a memorial for those who gave their lives for their country or for some equally noble purpose.

It is far more difficult for us to express ourselves when lives are snuffed out without warning, apparently without reason.

On such occasions, it is natural for us to wonder why, but there is no answer that we can understand. If there is a Divine purpose, it is one we cannot see with our limited vision.

If Nelson County were in the normal path of hurricanes, the disaster we have witnessed might have been something we could expect, but the most expert observers cannot tell us why this storm traveled hundreds of miles across several States to vent its fury on this particular section of Virginia.

For the living the storm aroused all that we admire in our fellowmen, a great compassion and an indomitable spirit. All of us have spoken of these.

Now we pay our silent respects to those who were the innocent victims of the storm. They cannot hear us for they are beyond pain and suffering.

But there is small comfort for those they left behind, the young people who became orphans overnight, the children swept from their mothers' arms, the families decimated by the on-rushing waters.

Only time and the understanding of friends will finally ease the ache in their hearts.

But if we seek something special by which to remember them, let it be the rebuilding of the stricken sections of this county, the transformation of chaos into better homes, better communities, better bridges and better highways, better fields and crops.

If we remember them this way, then perhaps they will not have died in vain.

And as we look with pride upon that handiwork in future years, perhaps we will have found that there was in this sudden onslaught from the sky, a Divine purpose after all.

SHOULD THE UNITED STATES PARTICIPATE IN AND ENCOURAGE THE DEVELOPMENT OF THE UNO

HON. JOHN R. RARICK

OF LOUISIANA

IN THE HOUSE OF REPRESENTATIVES

Thursday, September 25, 1969

Mr. RARICK. Mr. Speaker, an interesting debate on the subject, "Should the United States Participate in and Encourage the Development of the United Nations?" is scheduled for this evening at Westchester County Center, West Plains, N.Y., under the auspices of the Westchester County Committee, New Yorkers for the Constitution.

Mr. Arch E. Roberts, lieutenant colonel, Army of the United States, retired,

an author, renowned traveler and proven American patriot, who is a participant in the debate, has made available a copy of his succinct, pro-American argument in support of constitutional government as opposed to anarchy and our bankrupt international policy.

Because this distinguished scholar has prepared such an interesting and timely manuscript I feel that it is of profound interest to all of our colleagues and I include it in the RECORD at this point:

ROBERTS' ARGUMENT

Ladies and gentlemen of the jury, I hold for the prosecution.

During the next twenty minutes the prosecution will attempt to prove the following charges against the United Nations Organization:

1. That the United Nations is a subversive Organization.

2. That vital powers of government held in trust for the American people have been illegally transferred to the United Nations Organization in violation of the prohibitions of the Constitution.

3. That the United Nations Charter was foisted upon the American people to serve those who seek to overthrow the Constitution and coerce American citizens into a socialist animal farm.

Consonant with facts presented in official documents and public testimony, I shall utilize the war in Viet Nam to prove these accusations, and to expose the real objectives of the United Nations and those who promote its cause.

During the course of my indictment of the United Nations it will be well to keep in mind the following axiom:

Wars—under whatever name—which do not reduce the political power of an officially named "enemy" of the American people, and which do not increase the political power of the United States, must in the end reduce the political power of the United States and thus serve the secret objectives of a concealed enemy.

Let us begin our introduction for the prosecution by calling on the testimony of Lyndon B. Johnson, then president of the United States: Mr. Johnson told the American people on 13 July, 1965, that their soldier-sons are dying in Viet Nam because of United States commitment to the Southeast Asia Treaty Organization.

During a White House news conference on this date President Johnson stated: "I think that it is well for us to remember that three presidents have made the pledge for this nation, that the Senate has ratified the SEATO Treaty by a vote of 82 to 1, pledging the United States to come to the aid of any nation upon their request who are parties to that Treaty..."

President Johnson then went on to say, "We expect to keep that commitment. Our national honor is at stake."

Four years later, nearly to the day, President Richard M. Nixon was to use the same words in describing our commitment to the SEATO Treaty.

On Monday, 29 July, 1969, in Bangkok, Thailand, headquarters for the Southeast Asia Treaty Organization, Mr. Nixon reiterated his pledge to the SEATO Treaty in these words:

"We are determined," Nixon testified on world-wide television, "to honor our commitment to the Southeast Asia Treaty."

Neither Mr. Nixon nor his predecessors have, of course, admitted that the Southeast Asia Treaty, a treaty which our sons "honor" in blood and agony, was framed under the provisions of articles 52 and 53, United Nations Charter.

As we shall see, however, SEATO is a "regional arrangement" formed to deal with matters relating to the maintenance of in-

ternational peace and security "consistent with the Purposes and Principles of the United Nations."

The prosecution will prove that the "no-win" war in Viet Nam is secretly a United Nations war and that it is being conducted to serve the "Purposes and Principles" of the United Nations Organization.

We will also reveal why this strange war has clearly failed to reduce the political power of the "communist enemy." Instead, the war has increased the political power of the United Nations and thus serves the objectives of a concealed enemy.

Our first exhibit for the prosecution is, "The Story of SEATO," a booklet published by the Southeast Asia Treaty Organization.

On page five of, "The Story of SEATO," we find the following declaration:

"The members of SEATO have chosen a collective defence system, under the authority of the Charter of the United Nations."

SEATO, in this statement of purpose, asserts that it is an agency—an extension—of the United Nations Organization.

Let us now join this information to exhibit number two for the prosecution; the SEATO Treaty.

"The Parties," says Article I of SEATO, "undertake, as set forth in the Charter of the United Nations, to settle any international dispute in which they may be involved by peaceful means . . . and to refrain in their international relations from the threat or use of force in any manner inconsistent with the purposes of the United Nations."

American casualty figures in this interminable war are stark evidence that the military "force" used in Viet Nam is applied in a manner consistent with the "purposes of the United Nations."

United States Ambassador to Viet Nam, Ellsworth Bunker, made this point crystal clear in his personal testimony on "Meet the Press," 19 November, 1967.

"It seems to me that what we are doing (in Viet Nam) is to make credible our commitments under the United Nations and under SEATO Treaty to resist aggression. . . . We have made a commitment."

Unfortunately, Ambassador Bunker failed to identify the U.N. agency which is charged with conducting the Viet Nam war "under the United Nations." The information to fill this important omission can be found under Article IV, SEATO Treaty. I quote: "Measures"—the words "measures" means "military action"—"Measures taken under this paragraph shall be immediately reported to the Security Council of the United Nations."

Ladies and gentlemen of the jury, the chain of command could not be more specific than that: The Security Council is the war-waging arm of the United Nations.

However, let us pinpoint the U.N. articles which make "credible our commitment under the United Nations and under SEATO," as Mr. Bunker so lucidly explained on "Meet the Press."

For the purpose the prosecution now introduces exhibit three: the United Nations Charter.

As predicted in "The Story of SEATO," the authority for construction of the UN-SEATO "collective defence system" is revealed in Chapter VIII, "Regional Arrangements." A comparison of U.N. and SEATO articles also shows that the quotations made previously from the SEATO Treaty are, in fact, faithful duplication of the provisions of articles 52 and 54, United Nations Charter.

"Nothing in the present Charter," says Article 52, "precludes the existence of regional arrangements . . . provided that such arrangements or agencies are consistent with the Purposes and Principles of the United Nations."

It is immediately apparent that Article I of SEATO exactly reproduces the authority of Article 52, United Nations Charter.

Article IV of SEATO similarly reflects the provisions of Article 54, United Nations Charter.

"The Security Council," commands Article 54, "shall at all times be kept fully informed of activities undertaken or in contemplation under regional arrangements . . ."

This means, of course, that U.S. military operations "undertaken or in contemplation" in Viet Nam are first submitted to the U.N. Security Council for approval.

The evidence permits but one conclusion. The strategy of "Perpetual War for Perpetual Peace" . . . a strategy which sends Americans into battle "with neither promise nor hope of Victory" . . . is United Nations strategy.

U.N. war-making powers, and the usurpation of congressional authority which permits it, was dramatically illustrated by James Reston in his column of 13 July, 1967, entitled "Isolation Echoes By U.S. Move In Congo."

"The administration's position," Reston testified, "is that it is committed under the Charter of the United Nations, under various treaties, and under the Truman Doctrine, to do whatever it can to maintain peace anywhere in the world."

You now realize, of course, that the real objective of "no-win" wars is NOT "international peace and security" as U.N. supporters are lead to believe. The true "Purpose and Principle" of U.N. military adventures is to manipulate the United States armed forces under Security Council control; To force all of the nations into line and to deliver them up to a one world government.

For proof, I invite your attention to Chapter V, U.N. Charter, headed, "The Security Council—Functions and Powers."

Article 24: "In order to ensure prompt and effective action by the United Nations, its Members confer on the security Council primary responsibility for the maintenance of international peace and security . . ." and, Article 25: "The Members of the United Nations agree to accept and carry out the decisions of the Security Council . . ."

In simple language, ladies and gentlemen, these two U.N. articles transform the power of self-defense given to the Congress by the States, to a blanket authority to send Americans into battle anywhere in the world at the direction of the U.N. Security Council.

The Constitution is, of course, very specific about the powers of keeping peace and waging war. Nowhere does the Constitution authorize the transfer of these powers to an international agency.

The prosecution has therefore established the fact that Senate ratification of the United Nations Charter on 28 July, 1945, is in violation of the Constitution of the United States. Being illegal it must be put down.

Perhaps the members of this jury have wondered why the war in Korea and the war in Viet Nam saw the outpouring of vast resources of U.S. men and material into a land war in Asia without a formal declaration of war by the United States Congress. Well, Article 39 of the United Nations Charter explains why . . . and, more importantly, why the U.N. Security Council can, at any time, force the entire population of this nation into a military posture without the consent of an impotent Congress.

"The Security Council," Article 39 directs, "shall determine the existence of any threat to the peace, breach of the peace, or act of aggression and shall . . . decide what measures shall be taken in accordance with Articles 41 and 42, to maintain or restore international peace and security."

Articles 41 and 42 spell out the full authority and extent of U.N. military action and authorize the use of "air, sea, and land forces as may be necessary" to maintain or restore "international peace and security."

Additionally, the military muscle needed to enforce Security Council edicts is provided by usurped sovereign powers as spelled out in articles 43 and 46. These U.N. laws order the transfer of "armed forces, assistance, and facilities" from Member nations to the U.N. Security Council for use as the Security Council may determine in its application of armed forces anywhere in the world.

To give legal coloration to this breach of public trust, the Congress of the United States, on 26 September, 1961—just eight years ago—ratified Public Law 87-297, "The Arms Control and Disarmament Act." This unbelievable legislation purports to "legalize" the transfer of the United States military establishment, and American citizens in uniform, to a United Nations one world army.

Members of the jury, fellow Americans, your sons now serving in Viet Nam are, by U.N. Charter definition, members of a United Nations world army and take their orders from the United Nations Security Council "consistent with the Purposes and Principles" of the United Nations Organization.

As final proof in the case for the prosecution I read from Joint House Resolution Number 1145, "Gulf of Tonkin Resolution," which is often quoted as Congress's approval to commit Americans to the Viet Nam war.

"This resolution," states Section 3, "shall expire when the President shall determine that the peace and security of the area is reasonably assured by international conditions created by the action of the United Nations."

Ladies and gentlemen, I respectfully submit that the prosecution's case against the United Nations is now legally established.

a. The prosecution has demonstrated that the articles of the United Nations Charter amend, by deceit and subterfuge, the Constitution of the United States in a manner not sanctioned by Article V of the Constitution.

The United Nations is, therefore, a subversive organization and is a threat to the freedoms of person and property guaranteed to the people by the Constitution.

b. The prosecution has demonstrated that the authority to commit Americans to battle anywhere in the world has been surreptitiously transferred from the Congress of the United States to the Security Council of the United Nations.

Vital powers of government held in trust for the American people have, therefore, been illegally usurped by the United Nations Organization in violation of the prohibitions of the Constitution.

c. The prosecution has demonstrated that the real but concealed objective of the United Nations Organization is to place the military power of the United States at the disposal of the United Nations Security Council; To force all of the nations into line and to deliver them up to a one world government.

The United Nations was, therefore, foisted upon the American people to serve those who seek to overthrow the Constitution and coerce American citizens into a socialist animal farm.

In this brief indictment of the United Nations the prosecution has also revealed that, as the political power of the United States is dissipated in "no-win" military adventures, the political power of the United Nations, and those who promote its Purposes and Principles, is increased.

In summation, the prosecution declares that the United States should NOT participate in or encourage the development of the United Nations.

To the contrary, the prosecution claims that it is the clear and urgent duty of all federal officeholders to dismantle the United Nations Organization in consonance with their oath to "defend and preserve this Constitution."

During the question and answer period I will, if asked, identify the concealed enemy who seeks to overthrow the United States Constitution.

The prosecution rests.

SENATOR RANDOLPH LOOKS INTO THE FUTURE OF THE INTERSTATE HIGHWAY SYSTEM

HON. MIKE GRAVEL

OF ALASKA

IN THE SENATE OF THE UNITED STATES

Friday, September 26, 1969

Mr. GRAVEL. Mr. President, questions are now being raised as to the future course to be followed on completion of the 42,500-mile System of Interstate and Defense Highways, expected to be finished in the early 1970's.

The distinguished Senator from West Virginia (Mr. RANDOLPH) is particularly concerned in his capacity as chairman of the Committee on Public Works.

Last week, in a wide-ranging speech to the National Association of Motor Bus Owners at its 40th annual meeting in Atlantic City, N.J., Senator RANDOLPH took a thoughtful look at the question.

I ask unanimous consent that his speech be printed in the RECORD.

There being no objection, the speech was ordered to be printed in the RECORD, as follows:

CHALLENGES AND CHANGES IN TRANSPORTATION (Address by Senator RANDOLPH)

When the accelerated interstate highway construction program was authorized by law in 1956, it was heralded as the largest single public works undertaking on which any nation has ever embarked. That legislation came into being after two years of active Congressional consideration and following the recommendations of a Presidential Study Commission.

In authorizing that accelerated construction program, the Congress moved with a giant step from the previous approach of authorizing a primary and a secondary road system and their urban extensions paid for from the General Fund, to a long-term authorization of construction funds guaranteed by a self-sustaining trust fund.

It was estimated that the massive construction program would cost \$27 billion, with a Federal share of \$24.825 billion. In the last of the allocations under the 1956 Act, the sum of \$1.025 billion was to have been made for the fiscal year ending June 30, 1969. Construction, as then planned, would end by June 30, 1971. The Highway Trust Fund and the special taxes provided by the Congress to pay for this mammoth public works undertaking were to be terminated on June 30, 1972.

It is now September 17, 1969. We have not yet made the last apportionment of Interstate highway funds. In fact, with the enactment of the Federal Aid Highway of 1968, authorizations for the Federal share of the Interstate had reached the total of \$50.325 billion. It had been estimated at only half that amount in 1956. The 1968 act, as you know, extended authorizations for the Interstate System through Fiscal Year 1974.

The orderly pursuit of our goal of a system of express highways connecting the major cities of the United States has been impeded by two slowdowns in the release of funds to the States in the past two years. President Nixon has asked the Governors to

join with him in withholding action on construction programs. While the Federal Government has not cut back on highway funds, such action is a distinct and painful possibility. When I became apprised of the consideration of a general reduction in the Federal construction effort I sent the following telegram to the President:

"THE PRESIDENT,
"The White House.

"DEAR MR. PRESIDENT: As you and the Cabinet refine decisions relating to the economy of the United States, it is to be hoped that the impact of these decisions will not fall adversely on such facilities as hospitals, educational institutions, post offices, sanitation and pollution abatement works, highways and bridges, mass transportation, airports, flood control works and watersheds, and our harbors and navigable streams. These are programs of investment for our people, their safety, and their physical and economic well being. They are already too far behind the needs of the times to be set back further while we spend lavishly on probes of outer space and overcommit funds for the defense program. Experience with construction cutbacks has not demonstrated that they achieve beneficial effects as inflation retardants but has demonstrated that they create confusion and cause additional expense to both the public and private sectors, while dislocating resources in many communities. I have discussed these views with numerous senators who have told me that they concur.

"JENNINGS RANDOLPH,
U.S. Senator."

For the past two or three years, we have been estimating the cost of the Interstate System at something in excess of \$60 billion. We now understand that the Secretary of Transportation feels that the final total cost of the system may be nearly \$70 billion.

While the Committee on Public Works of the House and Senate have been reviewing the program pursuant to the periodic cost estimates required by the Act, and extending the time for construction in light of the information presented to us—and while we have witnessed construction changes and the development of a more sophisticated highway system than had originally been conceived—the taxes dedicated to the Highway Trust Fund are approximately those which were adopted in 1956. Except for certain additions made in 1961, and extension to September 30, 1972, of the period for collecting those taxes, the Ways and Means and Finance Committees have not examined in detail the Highway Trust Fund and its revenues since 1961.

Important changes in the highway program were made in 1968. We adopted a broad relocation assistance authorization and we gave our support to a policy of expanding the role of people and communities in highway location and construction. In addition, we directed the development of an equal employment opportunity program and added 1500 miles to the Interstate System. All of these modifications will add significantly to the cost.

The 1968 Act was landmark legislation for the highway program, but 1970 will be its year of challenge. Important determinations relating to the Highway Trust Fund must be made. If affirmative action is not taken to extend the life of the Trust Fund, and possibly to increase the revenues going into it, the Interstate System could not be completed, and we would have to halt further work on the vital network. Even if we were to indefinitely postpone some of the more controversial Interstate segments in major metropolitan centers, we would be talking of only 150 miles of the total system. These are expensive miles, but they do not represent the difference in the amount which will be

available to pay for the Interstate System and its total cost of construction.

I have discussed highway history, though you, as highway users, are familiar with it. I have done this to emphasize the crucial nature of the situation we now face. My purpose is to emphasize a problem, a serious problem, but not an insurmountable one. And I underscored it for a particular reason and for a definite purpose.

The decisions to be made in 1970 are important beyond their critical effects on the completion of the Interstate System. For, without clear evidence that highway user revenues will continue to be dedicated to highway construction purposes, there is no prospect that the Senate and House Public Works Committees can devise, develop and recommend a workable program for highway construction following the completion of the Interstate System.

Frankly, the "post-'75" program must rely on the continuation of Highway Trust Fund financing. Recently, I commended President Nixon for focusing the Nation's attention on the need for a meaningful mass transportation program. I questioned, however, the desirability and efficacy of such a program if it is to be financed from general revenues. I emphasized the need for a trust fund to provide our Nation with needed public transportation facilities. I reiterated my strong support for an airport trust fund, as well as continuation of the Highway Trust Fund.

The uncertainties of general fund financing through direct appropriations will not facilitate the long-term planning and development of such public works undertakings. This is especially true for highways. We know this, but knowledge alone is not sufficient. We must have clear and positive indication of what the future funding system will be for highways.

It is my intention to involve Secretary of Transportation John Volpe and Federal Highway Administrator F. C. Turner before our Subcommittee on Roads this fall to give us their counsel on the direction the highway program should take. We will discuss their recommendations and other possible options with them and we will publish the record of our hearing so that all interested parties and the public at large can study it and give us the benefit of their thinking on the "post-'75" program. There are many questions to be answered. The relationship between various transportation facilities, the relationship of the Federal, State, and local governments, the kinds of roads, the level of funding, the matching ratios—all of these facts—will be examined.

We should also look to the development of a special bridge construction program because many of our major river crossings are more than 40 years old and were designed and constructed to serve a population and an economy and vehicles much smaller and less mobile. As the oldest segment of the highway transportation industry you are aware of the changes which have taken place in the dimensions of vehicles being operated in inter-city travel.

As members of the National Association of Motor Bus Owners, you represent the oldest organized major transportation group in the United States. You provide opportunity for transportation over the very roads we are discussing to millions of our people and visitors to our Nation. It is my understanding that there were some 375 million inter-city bus trips made during 1968. You, therefore, are concerned with rendering service to a substantial portion of the American population and its economy since you also transport much of the Nation's small package freight. You are key persons who must make known the need for action in the coming year if this Nation is to have the highway system it must have to support business and com-

merce, to have its citizens live in comfort and to prosper.

I have alluded to the need for improved air transportation facilities. I would add that we must find a way of providing better coordination between our air facilities and our surface transportation facilities. It would seem that buses will provide a considerable amount of the connecting system between the airports and our population centers.

The Committee on Public Works is interested in the matter of highway safety as it is in highway construction programs. This past June, we held four days of review hearings on the highway safety program established by the Congress in the Highway Safety Act of 1966. As carriers of people, you must, of necessity, be extremely safety conscious. Since your vehicles are longer, wider, higher and heavier than passenger cars, you share the same relationship toward passenger cars that a big brother does toward a smaller one. It is incumbent on your organization and you, its members, to do everything you can to participate in the development of the community safety programs which the 1966 legislation envisioned.

The active participation of those who are commercially involved in highways and who benefit from their existence is a prerequisite to the success of the safety program and is an unshirkable obligation. Your participation in the development in State Legislatures of proper safety laws in keeping with the guidelines established by the Department of Transportation, is a responsibility and a duty to your fellow citizens.

I emphasize the importance which the members of the Public Works Committee attach to the success of the National Highway Safety Program. While the National Traffic Safety Act, which passed in 1966, and which concerns itself with the vehicle design and equipment was given much greater publicity, I have shared with Senator John Sherman Cooper, the Ranking Minority Member of the Public Works Committee, the belief that it is the highway safety program which in the long run will have the greatest payoff in lives saved and accidents avoided.

The challenges and changes in transportation which we have all seen in the past generation continue to occur. Each change is more remarkable and more consequential than those which preceded it. It is only through the vision of those who participate in the development and operation of our transportation network that we shall succeed in achieving our goal of providing our country and its people with a dynamic transportation system that will meet the needs of our growing America.

DEMOCRATIC STUDY GROUP FACT
BOOK—FISCAL YEAR 1970 DE-
FENSE BUDGET

HON. DONALD M. FRASER

OF MINNESOTA

IN THE HOUSE OF REPRESENTATIVES

Thursday, September 25, 1969

Mr. FRASER. Mr. Speaker, floor consideration of the military research and development and procurement bill is near and it is important for each Member of the House to inform himself on the new weapons systems requested by the Defense Department for fiscal year 1970. For a factual presentation of the issues involved in the controversial new weapons systems we will be asked to authorize, I commend to the attention of all Members the Democratic Study Group's

"Fact Book on the Fiscal Year 1970 Defense Budget." Beyond describing new weapons systems and providing a rationale and critique for each system, the DSG fact book relates these new weapons systems to the contingencies the systems are designed to meet. Also discussed in the fact book are some of the foreign policy assumptions on which our contingency planning is based.

Mr. Speaker, I insert the DSG "Fact Book on the Fiscal Year 1970 Defense Budget" in the RECORD at this point:

THE FISCAL YEAR 1970 DEFENSE BUDGET

(Prepared by the Democratic Study Group,
U.S. House of Representatives)

INTRODUCTION

This DSG Fact Book contains:

An overview of the FY 1970 Defense Budget.

Brief analyses of the contingency planning upon which the defense budget is based.

Fact sheets on controversial new weapons and programs for which FY 1970 funding has been requested.

The conflict over defense spending is likely to occupy public, Congressional, and Executive attention for some time to come. In order to better understand this conflict, it is useful to visualize it as three separate battles being fought concurrently, although the three battle zones often overlap each other.

First is a skirmish between the Congress and Defense Department management and procurement technicians involving efforts to assure more efficient and economical allocation of funds for programs conceded by both sides to be essential to the national security. At issue is about \$10 billion.

Second is a clash of massive public constituencies over the post-Vietnam division of the national economic pie. On one side the poor, the environment, and the oppressed taxpayer plead for attention. On the other defense industries press for new weapons to avoid problems of economic conversion such as unemployment and lower corporate earnings. At stake is two-thirds of the \$30 billion being spent on the war.

Third—and perhaps most significant—is a battle being fought high above these two visible conflicts. This battle is taking place in the rarefied air at the top of the Administration and in government-supported and private think tanks. The whole range of possible defense postures—from fortress America to *Pax America*—is being reviewed within the Administration while the think tanks are hard at work designing post-Vietnam foreign policies and assigning defense dollar costs to each. This process is largely hidden from Congressional and public view, even though the stakes in this battle are the highest of all—Defense budgets ranging from \$35 to \$115 billion for the 1970's.

It is hoped that this fact book will provide a framework for discussion of the current defense budget and contribute to better understanding of defense issues generally. Every effort has been made to give a fair and factual presentation of arguments for and against the various military concepts, programs and weapons systems involved in this increasingly important debate. This fact book is not intended, however, to be a comprehensive or definitive analysis of current or future national security issues.

SECTION ONE—OVERVIEW OF THE FISCAL YEAR
1970 DEFENSE BUDGET

Background

The FY 1970 Defense budget first came into public and Congressional view in the middle of January, 1969, when then-Secretary Clifford presented it to the Congress along with his annual Posture Statement. The Defense budget at that time requested \$80.6 billion in new budget authority. The

budget reflected the best intelligence estimates of various threats to the immediate national security and to various foreign policy commitments undertaken by the U.S. to that time. The \$80.6 billion emerged as the request after about \$40 billion had been cut within the Defense Department from the total of the amounts submitted by the military services and defense agencies.

Congressional committee work could not begin until after the new administration had taken office and prepared its amendments to the budget. Prior to presenting its amendments, the new Administration undertook a comprehensive review of strategic nuclear policy and considered five force options ranging in cost from \$6 billion to \$16 billion. The study recommended a strategic nuclear posture outwardly similar to the previous Administration's costing \$10 billion. The new Administration also initiated a comprehensive review of general purpose force levels, considering 10 options with price tags ranging from \$14 billion to \$85 billion. The recommendations of this review have not yet been made public.

At the end of March, Secretary Laird presented the new Administration's "mini" Posture Statement to the House Armed Services Committee. The amended request in new budget authority was \$78.5 billion, a \$2.1 billion reduction. Key changes in posture all appeared in the strategic nuclear area, and centered around shifting Sentinel to Safeguard, improving Poseidon MIRV capability against hard targets, and speeding manned bomber development. While these changes all involved small amounts of money, they reflected either new intelligence assessments of the Soviet threat or a U.S. decision to adopt a more forward strategic stance.

Spring saw widespread Congressional activity in the area of tightening management and procurement practices. The Joint Economic Committee took on questionable activities in the C-5A and F-111 programs and in June issued a report recommending thorough review of Defense Department procurement. Also during this period public concern focused on the issues involved in specific controversial programs, including the Safeguard anti-ballistic missile system and chemical biological warfare. Safeguard particularly served to open the door on the whole question of our strategic relationship with the Soviet Union and served as a catalyst for grass-roots pressure to shift resources from the defense to the domestic sector.

Against this background the House and Senate Armed Services and Appropriations Committees continued work on the key FY 1970 military procurement and R & D bill, containing \$22 billion in requests. This bill in its House and Senate versions contains money for programs having a total five or ten year systems cost far in excess of the amount authorized in FY 1970; programs funded will lay heavy claim during the 1970's on savings resulting from liquidation of the Vietnam war. The Committees also considered requests for \$1.9 billion for military construction, \$46.3 billion requested for operations and maintenance and military pay, in addition to \$7.8 billion in procurement funds, requires no new authorization. A final \$400 million requested for military assistance is under the authorizing jurisdiction of the Foreign Affairs and Foreign Relations Committees.

Format

The basic breakdown of the amended FY 1970 Defense budget is by title, as follows:

[In millions]

Military personnel.....	\$24,390
Operation and maintenance.....	21,960
Procurement	21,560
Research, development, test, and evaluation	8,300
Military construction.....	1,310

[In millions]

Family housing.....	\$615
Civil Defense.....	75
Military assistance.....	410
Subtotal	78,620
Budget concepts adjustments.....	-140
Total new obligational au- thority, (78.5 billion).....	78,480

The Defense Department also provides a breakdown by component, which for analytic purposes is useless, and a category breakdown, which is useful only in that it distinguishes strategic forces (FY 1970 unamended: \$9.6 billion) from general purpose forces (FY 1970 unamended: \$32 billion).

There is no way of determining accurately the total cost of a weapons system either from the basic Defense budget presentation or from the Secretary of Defense's accompanying Posture Statement. While procurement and R&D estimated costs for a given fiscal year are identified in the Posture Statement, such estimates do not include funds for paying troops, constructing facilities, providing housing, or operating and maintaining the system. These funds are all submerged in the basic categories for all systems and programs. Related costs are particularly important for modern weapons systems because such systems require expensively trained personnel and costly maintenance procedures. Such costs are available to Members of Congress only by request and then in very generalized form.

Another key defect in the present basic Defense budget presentation is the lack of an unclassified 5-year-or-longer systems cost. Members of Congress can, again by request, obtain a very rough estimate of such costs for individual systems. But a comprehensive and accurate estimate of the total 5-year costs of weapons systems authorized in a given fiscal year is not available, even for the procurement and R&D categories. The high cost of modern weapons systems again makes it important that such information be easily available to all Members of Congress, indeed to the public at large.

Perhaps the most useful document for analyzing the Defense budget is the annual Posture Statement which accompanies the initial budget presentation to the Congress. It is organized by program and provides a national security or a geopolitical rationale for each request. Thus the broad outlines of Secretary Clifford's FY 1970 posture statement have been adhered to in the following breakdown of Senate Armed Services Committee action on the Administration's FY 1970 procurement and R&D requests, and in Parts II (Strategic nuclear forces) and III (General purpose forces) of this Fact Book.

Senate action

After requesting guidance from the Defense Department in making its determination, the Senate Armed Services Committee, in early July, reported S. 2546 authorizing FY 1970 appropriations for military procurement, R & D, and Safeguard construction. The report also contained supplementary views critical of the Safeguard proposal signed by four Senators.

The Committee authorized \$20 billion for the purposes of the bill, \$1.96 billion below the Administration's request. Following is the breakdown of Senate Committee action, presented in the same format as the Secretary of Defense's Posture Statement.

Strategic Nuclear Forces (Procurement
and R. & D.)

Added \$153 million to the \$352 million requested for nuclear attack submarine procurement and recommended full funding for three boats instead of two. The Committee cited an increased Soviet submarine threat to both carrier strike forces and the Polaris

deterrent. It also cut \$29 million from \$119 million requested for advance funding for five additional submarines because of the decision to authorize procurement of a third submarine.

Approved a \$400 million reduction recommended by Secretary Laird for MOL (manned orbiting laboratory) R & D. \$125 million remaining of the \$525 million total request was authorized for termination costs.

Cut \$44 million from \$60 million requested for AWACS (advanced airborne warning and control system) R & D. It also cut \$16 million from \$18.5 million requested for R & D on F-106X interceptor modifications. The Committee recommended extensive study of bomber defense, citing wide differences between the National Intelligence Estimate and the Air Force estimate of the Soviet bomber threat.

Cut all of \$20 million requested for SRAM air-to-surface missile procurement, recommending further R & D. The Committee also cut \$40 million from \$550 million requested for aircraft modification, citing decreased need for B-52 modification in light of the SRAM procurement cut.

Cut \$14 million from \$121 million requested for ABRES (advanced ballistic reentry system) R & D.

Cut all of \$20 million requested for ULMS (undersea long-range missile system), and recommended termination of the program. General Purposes Forces (Procurement and R & D)

Land war forces

Cut \$20 million from \$67.5 million requested for M60A1 tank procurement. The Committee also cut all of \$3.8 million requested for laser range finder procurement and all of \$3.5 million requested for a training launch control system, both related to use of the Shillelagh anti-tank missile on the M60A1.

Cut \$15 million from \$45 million requested for MBT-70 tank R & D. The Committee recommended re-orientation of this joint West German-U.S. program.

Cut \$5 million from \$53 million requested for Sheridan reconnaissance/attack tank procurement.

Cut \$14 million from \$156 million requested for TOW anti-tank missile procurement. In hearings the Committee cited Army overestimation of the Warsaw Pact tank threat.

Cut \$18 million from \$110 million requested for CH-46E transport helicopter procurement. The Committee also cut all of \$15 million requested for R & D for a new heavy-lift helicopter and \$28 million from \$33 million requested for Mohawk observation helicopter procurement.

Cut all of \$16 million requested for offensive CBW R & D.

Cut all of \$8.5 million requested for Interrogator air defense control system procurement.

Cut all of \$1 million requested for LIT (light intra-theater transport) R & D.

Tactical Air Forces

Accepted a Defense Department recommendation that the total Cheyenne attack and armed escort helicopter procurement of \$429 million be cut. The Committee also cut all of \$16.5 million requested for Cheyenne R & D, thus leaving the program unfunded.

Cancelled A-7D attack aircraft procurement and recommended that the \$375 million for A-7D be used for F-4E attack aircraft procurement. The Committee noted that the A-7D required complete air superiority whereas the F-4E has unescorted interdiction and air-to-air combat capabilities. The Committee also cut all of \$100 million requested for A-7E attack aircraft procurement.

Cut \$22.5 million from \$38.5 million requested for A-37B attack fighter procurement.

Cut \$21.5 million from \$28 million requested for T-X navigational trainer procurement.

Cut all of \$15 million requested for RF-111 reconnaissance aircraft R & D.

Cut all of \$3 million requested for AGMX-3 air-to-ground missile R & D. The Committee cited extensive duplication in air-to-ground missile programs.

Naval War Forces

Cut all of \$66 million requested for new ASW aircraft R & D, recommending termination of the program. The Committee also cut \$25 million from \$165 million for VSX ASW aircraft R & D, citing delay in finding a contractor.

Cut \$43 million from \$68 million requested for ASMS (air-to-surface missile system) R & D.

Airlift/Sealift Forces

Cut all of \$187 million requested for procurement of three FDLs (fast deployment logistic ship). The Committee called the proposed ships a low-priority item.

Deferred \$50 million of \$1 billion C-5A transport FY 1970 costs to FY 1971. The Committee noted that six month's slippage in C-5A production allowed deferral of these spare parts funds.

Strategic and General Purpose Forces

Cut all of \$75 million requested for SAM-D anti-aircraft system R & D. While recognizing the need for a follow-on air defense system, the Committee doubted that SAM-D met this requirement. The Committee also cut \$9 million from \$99 million requested for Hawk surface-to-air missile procurement.

Other

Cut \$130 million from \$1.3 billion requested for a variety of R & D projects such as communications, intelligence, CBW, electronic surveillance, nuclear monitoring research, and certain classified programs. The Committee did not specify items but directed the Defense Department to distribute cuts among the military services and defense agencies.

Cut \$51 million from \$631 million requested for basic scientific R & D and project Themis, which seeks to divert military research from universities to other organizations.

Cut \$1.5 million from \$13.3 million requested for foreign affairs research.

Beyond these specific program cuts, the Committee directed that the Defense Department make additional cuts in R & D activities but left it to the Department to apply the cuts to programs of their choosing. The Committee remarked that it had deviated from the traditional across-the-board approach in specifying programs to be cut in the R & D area.

The Committee also expressed concern about management and procurement practices and the high cost of new weapons systems and directed the Defense Department to file quarterly progress reports with the Committee on such weapons systems.

SECTION TWO—STRATEGIC NUCLEAR FORCES

This section will first briefly describe nuclear war strategies. It also contains fact sheets on selected strategic items in the FY 1970 authorization requests, and discusses some pros and cons of the requests.

First strike

This strategy requires an offensive capability so great that most of one's opponent's deterrent forces are destroyed, and requires an ABM and bomber defense so effective that damage to one's own cities is very limited.

Destruction of an opponent's deterrent forces can only be accomplished with large numbers of very accurate or very large missiles. At the present time, it is more effective to launch accurate small missiles, or missiles

with accurate multiple warheads, than it is to launch large warhead missiles.

Some parts of the deterrent are harder to destroy than others; the safest deterrent forces at present are Polaris-type missiles. It would be extremely difficult, if not impossible, to destroy Polaris forces before they were launched, decreasing still further the plausibility of first-strike.

A first-strike capability is much more expensive than are retaliatory forces, because it costs more to destroy an enemy missile before it is launched than it costs the enemy to deploy another missile. If one nation is seeking a first-strike, the opponent can keep even by spending the same amount of money, assuming technological parity. Deploying more missiles and building more Polaris-type submarines are steps which can be observed by one's opponent; in the time it takes to deploy these, the offsetting retaliatory weapons can be deployed.

Putting multiple warheads on missiles, instead of adding more missiles, is less expensive and cannot be detected by one's enemy. If the multiple warheads are accurate, however, new and complicating factors are introduced. (See the Fact Sheet on MIRV.)

The intelligence community is of the consensus that the Soviet Union is not planning a first-strike capability; but there is undoubtedly a small probability of such a development. At the same time, the Soviet Union must perceive our stepped-up strategic deployment as posing a small probability that the United States is adopting a first-strike strategy.

Damage limitation

Damage limitation is the ability to reduce the amount of damage by a nuclear attack, either by means of offensive or defensive weapons or passive defenses.

Offensive weapons are used for damage limitation when they are used to destroy enemy strategic missiles prior to their being launched, presumably in the later hours of a nuclear war.

Examples of defensive systems used for damage limitation are Sentinel (not Safeguard), bomber defenses, and the Soviet Galosh ABM. Passive defense generally refers to civil defense.

Deterrence

Deterrence is a policy of ensuring that if an enemy should launch a first-strike, one will have sufficient second-strike or retaliatory forces remaining to inflict unacceptable damage on the enemy. Secretary McNamara, in his FY 1969 Posture Statement, estimated that a sufficient deterrent against the Soviet Union would be the capability on our part to destroy one-fifth to one-fourth of her population and one-half of her industrial capacity.

Many of the weapons used for first-strike are also used for deterrence, including land-and-sea-based missiles, bombers, and aids to help these forces to penetrate enemy defenses. One's deterrent is secured by defensive forces, such as Safeguard, point-defense of bomber bases, hardening of missile silos, and ASW (Anti-Submarine Warfare) protection of the Polaris-type forces.

Deterrent capability is decreased by an enemy's defensive damage limitation capability. Increasing the capability of one's missile force by adding missiles, using multiple warheads, or deploying penetration aids are methods of neutralizing enemy damage-limitation and preserving one's deterrent.

Safeguard ABM

Description

The Safeguard ABM system is made up of Sentinel components that are themselves a configuration of the basic Nike-X components. The system is made up of missiles, radars, computers, and interlocking command and communications elements.

The missiles are the 400 mile Spartan and the 25 mile Sprint, both carrying nuclear warheads designed to destroy incoming ICBMs by detonating in the vicinity of the incoming warhead. The radars are the long range PAR for initial acquisition and the shorter range MSR for target tracking. The computer network will be the most complicated ever developed and will be tested only by tapes of Soviet missile launches.

The system is to be deployed in the first phase at two Minuteman bases in Montana and North Dakota and in the second phase, if this deployment option is exercised, at two more Minuteman bases, seven bomber bases, and around Washington, D.C.

Costs

Since the early 1960s about \$3 billion has been spent on ABM. Western Electric was in charge of packaging Sentinel and performs the same task for Safeguard; in 20 months between July 1967 and April 1969 the company was paid \$1 billion for procurement and R & D. Major subcontractors were Raytheon (\$109 million for MSR), McDonnell Douglas (\$90 million for Spartan), Martin Marietta (\$70 million for Sprint), and General Electric (\$45 million for PAR). Five electronics companies were paid another \$60 million for computer work.

The Defense Department puts the total cost at \$6.6 to \$7 billion for a fully deployed Safeguard system, but admits this excludes \$1.2 billion in warhead costs in the AEC budget. The Defense Marketing Survey, a service for defense contractors, puts the total procurement and R & D package at \$12.2 billion. Estimates of the cost of maintaining the system on short alert once it is deployed are not available. Such costs will be formidable because of the state of readiness required, the need for expensively trained personnel to operate the sophisticated computers and radars, and the maintenance and operating requirements of such sophisticated equipment.

\$345.5 million has been requested in FY 1970 for procurement and \$400.9 million for R & D, for a total of \$746.4 million, in addition to \$16 million in construction funds. Unexpended funds from previous ABM authorizations may also be used for all Safeguard purposes except procurement of operational missiles; such funds may push FY 1970 Safeguard costs to \$1 billion.

For *Rationale* and *Critique* see DSG Fact Book entitled *ABM, Congressional Record*, June 20, 1969 (PS. 6871).

MIRV (Multiple independently targeted re-entry vehicle)

Description

MIRV is the loading of an ICBM with more than one warhead, each of which is separately aimed. The missiles designated for MIRV are the Air Force's Minuteman III and the Navy's Poseidon C3. The Department of Defense presently plans to replace about 500 of 800 Minuteman I's with Minuteman III, and 31 of 41 Polaris submarines with Poseidon.

The warheads on a MIRVed missile are carried in a "bus," which releases each warhead in its turn and then shifts course to release the next warhead at another target. Current plans call for 3 warheads in the bus designed for Minuteman III and up to 14 in the bus designed for Poseidon. Warheads can be replaced with penetration aids if circumstances require such a mix. The Poseidon warheads are expected to be in the low kiloton range if targeting accuracy improves sufficiently to make a warhead this small effective. Also, kiloton warheads can be easily tested underground.

There is question about the accuracy of MIRVed missiles. Use of MIRV as a deterrent weapon by targeting it against cities would not require a high degree of accuracy. If MIRV guidance systems are so improved as to be accurate within a fraction of a mile, a MIRVed missile becomes a first-strike weapon.

Costs

Estimates of the total cost for the MIRV program range from \$3 to \$12 billion. It is difficult to determine how much of the FY 1970 budget is allocated to MIRV, but the Defense Authorization bill before the Senate allocates \$301.4 million (to go with \$139.6 million previously authorized) for conversion of 6 Polaris submarines to Poseidon and \$157.5 million in advance for conversion of 12 more submarines. The bill also allocates an unspecified amount for Minuteman conversion.

The Nixon Administration added \$12.4 million to the original MIRV requests to improve the accuracy of the Poseidon in order to enhance its effectiveness against hard targets.

Rationale

MIRV is economical. Putting three warheads on one missile is less expensive than constructing three missiles. This is so even when one accounts for both the reduced warhead size and the reduction in total megatonnage per missile going from ICBM's to MIRV's.

MIRV increases our deterrent. One of MIRV's purposes is to penetrate ABM systems by firing a succession of warheads toward the same area. Thus the Soviet Union would know that if they launched a first strike, their ABM system would not protect their cities from our second strike. In increasing our second strike capability, MIRV would decrease the likelihood of the Soviets launching a first strike.

Proceeding with MIRV would hasten arms limitation talks, since MIRV's ability to penetrate Soviet ABM systems would give the USSR an incentive to trade an ABM halt for a MIRV halt.

Critique

MIRV accelerates the arms race, at a cost of increased world tension and billions of dollars.

The intelligence community has produced no evidence that the Soviet Union is flight-testing MIRV. Their recent multiple warheads tested have not been independently targeted; the U.S. has had such MRV capability for some time. Because we are far ahead of the Soviet Union, we can safely negotiate a MIRV test ban now and lessen the need for ABM on both sides, saving billions of dollars. If MIRV testing is completed, an agreement cannot be verified by unilateral means, such as satellites, which greatly reduces the chances of either side signing it.

With testing completed or near completion, the Soviet Union will assume deployment is imminent and will develop and deploy MIRV themselves. Particularly disturbing is the Administration's request for \$12.4 million to improve MIRV guidance systems against hard targets. This threat to the Soviet deterrent taken with ABM deployment is evidence of intention to develop a first strike capability.

MIRV on both sides increases the possibility that the U.S. or the Soviet Union will consider a first strike strategy because:

MIRV is an extremely cheap way of suddenly and secretly multiplying the number of deliverable warheads.

A MIRVed deterrent force equivalent in deliverable warheads to a non-MIRVed deterrent force is far more vulnerable to a first strike because the number of actual missiles has been reduced. Since a MIRVed deterrent is more vulnerable to a first strike, the temptation to launch missiles as soon as incoming missiles are detected—or before—is much greater. Decision-times are shorter and the possibility of rash action is increased.

ABRES (Advanced Ballistic Reentry Systems)

Description

ABRES is a joint R & D program to improve the maneuverability of ICBM reentry vehicles and the effectiveness of penetration aids. Part of the program offers the pos-

sibility of advancing the MIRV weapons system by adapting individual guidance units to each of the several re-entry vehicles loaded in one ICBM. The MIRV weapon now being tested releases one warhead at a precise point during the missile's trajectory, then shifts course to release the next warhead at another target. MIRV technology developed under ABRES will enable each re-entry vehicle to alter course, maneuver around an antiballistic missile system, and guide the H-bomb to its target.

The ABRES program in addition involves continuing R & D on penetration aids such as heatshields, decoys, chaff, and electronic counter-measures. ABRES also comprises defensive technology such as hardening concepts and characteristics of re-entry vehicles to facilitate destruction of incoming enemy warheads.

Costs

The ABRES program has been in operation since 1963. Over \$1.3 billion has been spent since FY 1962 on technology development for ICBM reentry vehicles and penetration aids. DOD requested an additional \$121 million in R & D funds for FY 1970, which was cut by \$14 million by the Senate Armed Services Committee. Singer-General Precision, Inc., was recently awarded a \$3.9 million contract to develop and build parts for a new guidance system, an indication that the Pentagon intends to go ahead, with an advanced MIRV weapon. Total R & D costs for the ABRES program for the next 5 years are estimated at over \$600 million.

Rationale

ABRES is intended to increase the technological data available for new weapons development and does not involve effort on deployed systems. The effort is primarily in the area of improving capability to penetrate Soviet defensive systems, although hard target capability is improved in some ABRES activities. The central objective, however, of the ABRES program is the maintenance of our deterrent by enhancing the penetration capability of our re-entry vehicles.

Improvement of our hard target capability is not directed toward a U.S. first-strike, but supports our second-strike damage limiting ability, a secondary U.S. strategic requirement.

The portion of the ABRES program relating to an improved MIRV guidance system in fact decreases our ability to hit hard targets because installation of a guidance system capable of maneuvering around Soviet ABMs requires a trade-off in accuracy and warhead size. In any event research on maneuvering re-entry vehicles does not imply a plan to use them.

Critique

The necessity for maintaining a technological base for future weapons development is generally accepted, particularly as far as R & D is concerned. It is not clear, however, that the ABRES program is confined solely to R & D efforts. The Singer-General contract, for example, is for production of parts for a new guidance system—clearly a step beyond research and development as it is normally defined.

ABRES, like any other new weapons program, develops its own momentum for deployment. Once the technology becomes available for successful introduction of a new system or a system refinement, the pressure for production and deployment becomes irresistible. Unfortunately, the ABRES program has been so tightly classified that it is impossible to determine at what stage the components of the program have arrived.

With regard to the U.S. secondary strategic mission of limiting damage by destroying hardened enemy missile silos, such a capability clearly presents the President with a first-strike option. A potential enemy, of course, has only the President's word that the

option will not be exercised. For an enemy strategic planner to meet contingencies on this basis would surely be too much to ask. Therefore, the damage limiting mission becomes an excuse for enemy planners to go ahead with weapons systems designed to dig out our missiles, which in turn raises first-strike fears in this country and sends the strategic arms race into another upward spiral.

SRAM (short range attack missile)

Description

SRAM is an Air Force missile which will arm the FB-111 and the G and H models of the B-52. It is supersonic, air-to-ground, and nuclear-armed, for use against cities.

Costs

The original contract between the Air Force and Boeing for the R & D phase of the total SRAM system, including mating the system to the aircraft, was for \$142.3 million. The overrun has been set at \$55-\$60 million by the Air Force and higher than \$80 million by the Senate Armed Services Committee. SRAM is the second Air Force hardware program (the other was the C5A) to be developed under terms of this total package concept.

The FY 1970 budget contains \$20.4 million for SRAM procurement (all of which has been deleted by the Senate Armed Services Committee) and \$84.7 million for R & D.

Rationale

With SRAM, the bomber does not have to fly on to the target, which is likely to be heavily defended. Therefore, SRAM extends the useful life of the B-52 and FB-111. This diminishes the need for an advanced manned bomber, and might save billions of dollars.

Critique

Critics within the Pentagon state that if adoption of SRAM could in fact delay advanced manned bomber development, it is an excellent idea. SRAM, however, has been hindered by poor R & D management. The program has been pushed too fast—for example, the FB-111 was not operational when SRAM design started.

Technical problems encountered during research and development have included:

Developing a restartable, solid-propellant motor.

Designing a missile capable of being carried on both the supersonic FB-111 and the subsonic B-52.

Modifications in the FB-111 have necessitated modifications in SRAM.

The test schedule has fallen behind.

A number of critics, of course, question the assumption that we need manned bombers at all (see AMSA); SRAM would not be needed if we phased out our manned bombers.

SCAD (subsonic cruise armed decoy)

Description

SCAD is an air-launched decoy to go with the B-52 and FB-111 as a complement to SRAM. SCAD's radar image is identical to the B-52, thereby confusing enemy detection. It also has a multiple warhead capability to destroy enemy bomber defenses.

Costs

Total funding to this point has been \$15 million. SCAD is still in the R. & D. stage. The amount requested in the FY 1970 budget is classified.

Rationale

SCAD increases the ability of manned bombers (FB-111 and B-52) to survive and penetrate the expected improved Soviet air defense system of the mid-1970's.

Critique

SCAD and SRAM are related programs (e.g. they will use the same launching and control apparatus, and both extend the useful life of the present manned bombers).

Critics fear that classification of the amounts spent on SCAD could be concealing cost overruns similar to SRAM's.

AMSA (advanced manned strategic aircraft)

Description

AMSA is a swing-wing manned bomber for the 1970s and 1980s. It is as large as the B-70, but can fly at 200 feet for 1,000 miles at the speed of sound, thus giving it the capability to avoid air defenses. It has a range with one refueling of 6,700 miles and a top speed of 1550 miles per hour. AMSA could be armed with nuclear bombs or nuclear-tipped air-to-ground missiles.

Costs

\$140 million has been spent on R & D to date. The estimated total R & D costs are \$1.76 billion. Unit cost estimates run from \$20 million to \$80 million. With a production run of 263 as currently estimated, total production cost estimates run from \$5.26 billion to \$21 billion.

The FY 1970 budget contained a request for \$77.2 million for R & D. Secretary Laird added \$23 million to this request and the Senate Armed Services Committee approved the FY 1970 total of \$100.2 million for R & D.

Rationale

The U.S. arsenal must contain a mixed force consisting of both bombers and missiles in order to insure against missile unreliability or improvements in Soviet missile defense systems. Bombers are more flexible than missiles because they can be redirected to other targets while in flight or called back.

An investment in AMSA would require the Soviet Union to build a new bomber defense system, complicating their defense problem and requiring diversion of resources from ABM programs. AMSA could also be used for other military efforts such as non-nuclear bombing in limited wars.

Critique

The Pentagon itself has repeatedly informed the Congress that:

The Soviet long-range bombers number less than one-sixth of our B-52 force, and are inferior to that plane.

The Soviet SST cannot be redesigned to be a manned bomber.

There are no signs that the Russians are developing a new bomber.

The intelligence community is of the consensus that the Soviet medium-range bombers represent so small a threat that the National Intelligence Estimates omit mention of them altogether.

Critics assert that the deployment of large numbers of intercontinental land-and-sea based missiles has placed bombers in a secondary strategic role. Hidden or hardened missiles are far less vulnerable during a first strike thus providing a more credible deterrent. In 1966, Secretary McNamara pointed out that even if 50% of the missiles the U.S. deployed were faulty, or were shot down by a Soviet ABM system, the U.S. could still deliver more warheads per dollar by missile to the Soviet Union than by manned bomber.

Limited warfare roles of bombers do not require AMSA. B-52's have flown thousands of missions over Vietnam without one loss to hostile action; AMSA would cost more to do the same job.

Industry sources indicate that the present specifications may be impossible to achieve. Any unexpected development in R&D, such as a weight increase, a loss in engine efficiency, or an increase in the penetration aids AMSA must carry, will do to it what similar problems did to the Boeing swing-wing SST, which was abandoned.

Bomber defense

Description

NORAD (North American Air Defense Command) is the basic U.S. defense against the Soviet bomber threat. It consists of ra-

dars, communications, computers, control centers, missiles, and interceptors. The system was developed in the early 1950's when the Soviet strategic capability depended on a large bomber fleet.

Essential components of the system are:

The DEW line radars.

The SAGE (Semi Automatic Ground Environment) system, a computerized command and control system for the missiles and interceptors.

The BUIIC (Back-Up Interceptor Control) system, designed to take over if SAGE is destroyed.

Nike Hercules, Hawk, and Bomarc surface-to-air missiles, deployed at 110 sites around the U.S.

Forty-one interceptor squadrons of about twenty planes each, deployed at bases around the U.S.

NORAD was constructed at a cost of tens of billions of dollars when a first-strike would have been against cities, but being carried out by bombers, would have allowed many hours warning time.

Costs

The Pentagon has this year proposed gradually phasing out SAGE and replacing it with a new, more efficient system. The new system is designed to counter a Soviet B-70, AMSA, or SRAM-type missile on their present aging bombers.

The new system is to consist of the following:

OTH (Over-the-Horizon) long range radar. Costs of OTH are not available.

AWACS (Airborne Warning and Control System) large aircraft with radars capable of "looking down" at a Soviet bomber attacking at very low altitudes (200 feet), and controlling the interception of such bombers. AWACS will be invulnerable to missile attack. \$60 million is included in the FY 1970 budget for R & D on AWACS, of which the Senate Armed Services Committee cut \$45 million, recommending that the program be deferred one year.

F-106X (an improved F-106 interceptor), which will have a "look-down/shoot-down" capability against low-flying Soviet bombers. The FY 1970 budget contains \$18.5 million for R & D on modernizing the F-106, of which the Senate Armed Services Committee cut \$16 million. The program will have an estimated investment cost of \$750 million to \$1.2 billion. Annual operating costs are expected to be \$700 million.

Sam-D (a new anti-aircraft system to replace Nike Hercules and Hawk). The system includes radar, electronic guidance, and missiles. \$75 million is in the FY 1970 budget for contract definition for advanced development. The Senate Armed Services Committee cut this item in its entirety, stating that its development was not urgent and that it might not be the most efficient system for the requirement.

The Air Force has recommended the Lockheed F-12 as a possible alternative to an improved F-106. F-12 would be a 1950 mile-per-hour interceptor with a unit cost of \$40 to \$50 million. Annual operating costs of a pure F-12 force are estimated at \$750 million.

This interceptor, also with a look-down/shoot-down capability, could deter or defend against a Soviet AMSA or a SRAM-like missile, but only marginally better than F-106X. The F-12 has the disadvantage of possibly encouraging Soviet AMSA development, just as the Russian ABM brought on our MIRV.

Rationale

A strong bomber defense is necessary at the present time to deter development of a Soviet B-70, for which they now have a sufficient technological base. If the Soviet Union should develop and deploy such a bomber, the U.S. could not be caught without an adequate defense. At present, the Soviet Union has a fleet of about 150 long-range bombers.

In addition, it is conceivable that countries other than the Soviet Union, such as Cuba, could attack the U.S. with manned bombers and inflict serious damage. If the costs of defense are lower than the probability of such an attack, defense is warranted.

It is also likely that bombers would be used in a European, Middle Eastern, or Asian conflict. If the U.S. gets involved, we must protect our forces and allied forces and cities with sufficient bomber defenses.

Critique

Bombers are useless in a strategic offensive force unless a nation does not have ICBMs or Polaris-type forces. Soviet bombers flying to American missile silos would find them empty upon arrival. U.S. bombers withheld from a Soviet first strike attack, if not destroyed in the first round, would find few targets left of any real strategic importance.

Bombers cost so much more than the more-efficient missiles that if a nation needed an improved deterrent, and built bombers instead of missiles, it would be diminishing its own national security. The Pentagon states that the Soviet heavy bomber force is expected to continue its gradual decline, and that medium bombers could not play an important part in an attack on the United States. The Russian SST would be extremely difficult to convert to a modern bomber. Both the United States and the Soviet Union decided in the mid-1960s not to go ahead with bomber development.

Given the low probability of a bomber attack, critics argue that defenses against bombers are unnecessary. If, however, one concedes a need to defend against a greater-than-expected threat, there are less costly alternatives to OTH, AWACS, SAM-D, F106X, and F-12.

The Senate Armed Services Committee decided that the present system has sufficient capability against the greater-than-expected threat. The present system has low research and investment costs. On the other hand, despite the fact that it is being made more efficient each year, it has an operating cost estimated at from \$733 million to \$1 billion annually.

Some critics suggest turning the tracking and identification responsibilities over to the Federal Aviation Administration, maintaining an F-106 force sufficient to defend against the existing threat, and finishing the R & D on OTH, AWACS, and F-106 so that these systems can be immediately deployed if the Soviet Union starts development of an AMSA.

SECTION THREE—GENERAL PURPOSE FORCES

This section contains a brief discussion of the military doctrine that underlies our general purpose forces. Following are four subsections covering land, tactical air, and sea war, and airlift/sealift war, introduced by a discussion of contingency planning and force levels for each type of warfare and fact sheets on controversial weapons systems or programs in the FY 1970 budget.

Flexible Response

Under the doctrine of flexible response, the United States reserves for itself a number of options in a crisis, ranging from threatening the selective use of conventional forces through tactical nuclear war. Because an opponent can threaten any level of violence, prudence requires a response at the same level but with greater force, thereby deterring the opponent without unilaterally escalating to a more drastic type of war. The doctrine was adopted during the Kennedy Administration in the belief that a major power which relies solely on strategic nuclear weapons, as the U.S. did during the 1950's, is faced, in a crisis, with the unsatisfactory choice of using the weapons or accepting diplomatic defeat.

Hundreds of billions of dollars were spent by the Defense Department in the pre-Kennedy years. The military services spent

the money on long-range manned bombers, high Army and Marine force levels, and as large a surface Navy as possible. These expenditures resulted from the ceiling on the defense budget and interservice rivalry. The services spent money on programs which symbolized institutional power, rather than programs calculated to improve our overall defense posture. After the 1961 decision, Secretary McNamara, through improved management and some expenditure increases, built up our flexible response capability. The policy is very expensive, costing about 70% of the non-Vietnam defense expenditures during the last 10 years, or \$350 billion.

Two Major/One Minor Wars

The factors which determine the level of defense spending are the contingencies we view as likely to come about, and our interpretation of their effect on our national security. For general purposes forces, it is the kind of wars we want to be able to fight, simultaneously and on short notice, that determine how large our forces must be in peacetime, and therefore the size of much of the defense budget.

U.S. planning for non-strategic war aims at a high degree of readiness to fight three conflicts arising simultaneously. The three conflicts are a Vietnam-size contingency in Asia; a Dominican-Republic size intervention in this hemisphere; and a tactical nuclear land war in Western and Central Europe. The duration of the conflicts for which preparations are made is classified.

Critics emphasize that such contingency planning must be re-thought if policies are to be changed. They argue that the contingencies of a tactical nuclear war or a protracted war at sea are highly unlikely, and that the probability of both conflicts arising simultaneously is next to zero. They recommend re-defining those areas of the world in which our national security is truly engaged, and reassessing the ability of military force to accomplish ends judged vital to our national security.

Land war forces

Current Mission

Current contingency planning for land war assumes that U.S. national security would be critically involved in a confrontation between the European NATO countries and the Warsaw Pact, in Communist military aggression or large-scale insurgency in Asia, in Soviet direct intervention in the Middle East, and in certain Caribbean contingencies. In their initial phases these wars would all be limited wars. Strategic planners prepare for three types of limited land war:

Slow build-up/long term, such as the war in Vietnam.

Fast build-up/long term, such as the Korean War.

Fast build-up/short term, such as a new Korea or a Chinese invasion of Taiwan.

Planners now believe that a fast build-up in defense can shorten a war. Planning for a fast build-up requires large peacetime forces-in-being and a great deal of mobility, which is the reason for the Strategic Reserve and airlift/sealift capability. Our overall posture is designed to cope with two major and one minor contingencies arising from situations as described above.

Critique

All of the contingencies for which we currently plan are of low probability. Current planning assumes that in order to deter intervention by the Soviet Union or other powers, we must think in terms of putting ground forces into a conflict. If one reviews contingencies, however, one is hard put to imagine a case outside of Europe where we would again be prepared to take such action. Our security interests in Asia now center around Korea and Thailand. Both have the ground troops to defend themselves and

would be better supported in a crisis by U.S. firepower rather than manpower.

With regard to Europe, it is difficult to conceive of confrontations between the Warsaw Pact and NATO which would be long-term and non-nuclear, because:

Soviet and U.S. units are placed very far forward in Europe and would become engaged almost immediately.

The U.S. has 7,000 tactical nuclear warheads in Europe, including nuclear land mines along the eastern NATO line.

Casualties in combat units in a tactical nuclear war are estimated at 20% per day.

Force Levels

Combat division strength and basing are largely determined by the contingencies for which we prepare. Considerations such as the balance of payments and the usefulness and mobility of the reserves also influence current force levels and basing. In the future new factors will influence force level and basing decisions:

Greatly increased mobility, making it possible to station more combat troops outside theaters of operations for rapid deployment.

Reduced manpower requirements, due to a reluctance to involve U.S. ground forces in protracted conflict.

The expiration of base agreements, and political changes in countries which in the past have provided the U.S. with basing facilities.

In the past, the military services have asked for and been routinely authorized arbitrary troop strengths. Unit sizes and over-all force levels have been calculated on the basis of the last war. For the future, we must more accurately determine troop requirements, and design forces to attain the goals for which we are likely to be fighting. For instance, we should determine whether we are in Europe as a trip-wire or to fight a long-term land war on the continent, before we size our forces there.

Our force levels for land war should also be determined on a long range basis to allow for more efficient manpower management. The Five Year Defense Program could usefully serve this need.

Sheridan

Description

Sheridan is a lightweight armored reconnaissance attack vehicle intended to provide the Army with substantial improvement over existing armored vehicles. The tank is to provide amphibious and airborne capabilities, high mobility, increased rate of fire, and better hit probability. It employs the Shillelagh anti-tank missile system. It travels 43 miles per hour and has a 350 mile range.

Costs

\$1.2 billion has been spent on the Sheridan-Shillelagh program to date, with no combat-operational tanks yet available. Sheridan was put into production even though testing showed it to have numerous shortcomings. Millions of dollars have been spent on modifications of the unusable weapons which were produced. Prime contractor is General Motors, using government-owned facilities in Cleveland, Ohio. The Senate Armed Services Committee has deleted \$5 million from the \$53 million requested for procurement in the FY 1970 budget.

Rationale

Sheridan is essential to counter the quantitative and possible qualitative superiority of the armored units expected to be deployed by the Warsaw Pact countries.

Critique

Although the Senate Armed Services Committee reported that the Sheridan was performing in an outstanding manner, the House Armed Services Investigating Subcommittee (Report, July 9, 1969) reviewed the Army tank program and concluded:

While the Army considered the M60A1 main battle tank equal or superior to Soviet-

designed tanks, it failed to maintain an adequate production rate of M60A1's during the 1960's. Citing the thus limited armored capability, and fearing loss of program funds, the Army ordered mass production of Sheridan before there was any adequate assurance that the design was suitable.

Misleading reports and unwarranted overconfidence of Army developers influenced the decision to produce Sheridan. Despite continuing development failures, production decisions were made so that an appearance of satisfactory program progress would lessen the chance for searching and critical review by the Office of Secretary of Defense and the Bureau of the Budget. Hasty production decisions caused millions of dollars to be spent to reconfigure and modify the equipment in order to even partially achieve design goals.

Despite design defects in the Sheridan system, the Army hurriedly modified a small number of Sheridans and released the vehicles to Vietnam in early 1969 to demonstrate the Sheridan's value as a weapon as soon as possible. The release was conditional because known safety hazards and performance limitations had not been eliminated. Not one Sheridan as originally designed and produced was suitable for combat use without extensive and costly retrofits. A few so modified were sent to Vietnam for test purposes under combat conditions, but hundreds of defective Sheridans remain in storage. Although "caseless" 152mm ammunition is being supplied to Vietnam, it is still unsatisfactory and has impaired the Sheridan's effectiveness. Misfires, broken rounds, and other serious defects, have caused casualties lowering crew confidence in the weapon.

The Australian Government tested two Sheridans in 1967 and identified the same deficiencies found in the U.S. test report. The Australian Minister for the Army rejected Sheridan.

So much time and money had been spent developing the Sheridan/Shillelagh system that the developers became irrevocably committed to production. Under such circumstances the Project Manager became a captive rather than a manager of his project. Such attachment inevitably results in management of doubtful quality.

In light of these facts, the Committee concluded that there is no convincing evidence that Sheridan represents enough of an improvement in combat capability over existing weapons to justify any more expenditures of time and money.

MBT-70 (Main Battle Tank)

Description

The MBT-70 is a joint U.S.-West German heavy tank designed to operate in the environment of a tactical nuclear or chemical/biological war in Europe. It employs the Shillelagh tank missile system. It is intended to be more maneuverable and less vulnerable than existing tanks, and superior to future Soviet armor.

Cost

The prime contractor for the MBT-70 is General Motors Corporation. The United States and Germany agreed in 1963 to divide evenly the estimated R & D cost of \$80 million. However, R & D cost estimates have been repeatedly revised upward; to \$138 million in 1965, \$303 million in 1968, and most recently to \$554 million. The cost to the U.S. has risen 528% over the original estimate. The production engineering phase of development is estimated to add \$188 million.

The final per unit cost of the MBT-70 will be between \$520,000 and \$750,000. Repeated delays have deferred the target date for production from 1969 to 1974.

The Senate Armed Services Committee has cut \$15 million of the \$45 million requested in the FY 1970 budget for R & D. The FY 1970 budget also contains \$25 million for MBT-70 production base support.

Rationale

MBT-70 is needed to off-set the quantitative and potentially qualitative superiority of Soviet armored vehicles. As the U.S. must be prepared to fight a tactical nuclear land war in Europe, a tank capable of operating in this environment is required.

Critique

The MBT-70 utilizes highly sophisticated materials that are quite probably unsuited to cost-effective tank development. For instance, casting the armor with boron steel attempted to utilize a process that had not been fully developed. The Shillelagh missile system with which the tank is to be equipped has not lived up to expectations. Difficulties in the R & D phase have driven the estimated unit cost to over half a million dollars, or almost three times its Soviet equivalent.

Aside from technical and cost considerations, the assumptions cited by the Army in 1963 for developing such a tank no longer apply in 1969. By 1974, the time the tank will be ready, the nature of tactical warfare will have changed as to make MBT-70 obsolete. If, in spite of the drop-off in the Warsaw Pact tank threat, a new tank is still required, the Army should initiate MBT-80 now and abandon MBT-70.

There is great question whether tanks will ever be effective in warfare again. The 1967 Arab-Israeli war showed how vulnerable tanks are to tactical air. In any tactical nuclear war it is very doubtful whether a tank could survive. Troop-launched guided missiles also will by the mid-1970s make tank warfare a risk proposition.

Dragon, Shillelagh, and Tow (Antitank Missiles)

Description

Dragon is a light Army missile system designed to destroy all but the heaviest armor. It is guided by a reusable infrared sighting device linked to the missile by wire. It travels at about 400 miles per hour and has a maximum range of 1,200 yards. Dragon will be deployed at the platoon level, and will replace the 90mm recoilless rifle.

Shillelagh is a lightweight guided missile to be launched from a combination 152mm gun/launcher. It is guided on a boost-glide trajectory by electronic equipment in the launch vehicle. It is to be deployed on the Sheridan, modified M60A1, and the MBT-70.

Tow is a supersonic anti-tank missile system similar in guidance system to Dragon. It travels at about 650 miles per hour and has a maximum range of about two miles. In its surface-to-surface version, the system weighs 200 lbs. but can be truck mounted. Tow can also be mounted for air-to-ground use from the Cheyenne attack helicopter. It replaces the 106mm recoilless rifle.

Costs

In FY 1969, \$18 million was requested for Dragon production engineering, bringing total outlay to \$35 million. Procurement costs for the system are currently estimated at \$133 million over a three year period.

\$110 million was spent for Shillelagh procurement in FY 1968 and FY 1969. The FY 1970 budget contains \$50 million for continued procurement.

Total R & D and procurement costs for Tow through FY 1969 were \$192 million. The FY 1970 budget contains \$156 million for procurement and \$2.5 million for additional R & D. The Senate Armed Services Committee cut \$14 million from the procurement request, citing overestimation of the Warsaw Pact tank threat by the Army.

Rationale

Anti-tank guided missiles are needed because such missiles have a superior kill capability over conventional artillery. Such increased kill capability is needed to counter the quantitative and possible qualitative superiority of tanks deployed by the Warsaw Pact countries.

Critique

Dragon has poor capability against heavy armor and a limited range. Tow is extremely cumbersome, requiring a three man launch team. Continued Tow R & D expenditures indicate difficulties and suggest procurement has been rushed. Shillelagh does not work well at night or in the rain, and no satisfactory launching mechanism has been developed for the missile. All three missiles will not work if anything interferes with the gunner's continuous observation of the target.

It is not likely that any of the missiles work much better than ENTAC, which was abandoned at a systems cost of \$50 million. All three missiles are far more expensive than ENTAC. ENTAC was so expensive that personnel were not permitted to train with the missile itself, but instead had to rely on a simulator. Since there is a request of \$4.6 million in the FY 1970 for a device to permit Shillelagh training without firing a missile, it is likely that this problem is besetting Shillelagh and will beset Tow and Dragon.

The 90mm and 106mm recoilless rifle are adequate to deal with a low-probability contingency such as full non-nuclear war in Europe. Dragon, Shillelagh and Tow can all be countered with electronic countermeasures; should this occur, we would find ourselves without effective anti-tank weapons, having phased out the recoilless rifles.

The Warsaw Pact tank threat has been over-estimated. It has been used to justify air-to-ground missiles, tank programs, anti-tank missiles, attack helicopters and even tactical aircraft. Because of such over-reaction, each \$250,000 tank built by the Warsaw Pact requires the United States to spend millions in overlapping systems, and this, for the low-probability contingency of a full conventional war in Europe.

CBW (Chemical/Biological Warfare)

Description

CBW includes research on offensive and defensive chemical and bacteriological agents and delivery devices, the procurement, manufacturing, and stockpiling of these materials and devices, and the maintenance of facilities for greatly-increased production should the U.S. feel compelled to use these devices in time of war.

It also includes the present large-scale production and use of chemical anti-crop and personnel agents in Southeast Asia.

Costs

FY 1969 expenditures are estimated as follows:

	[In millions]
Research and development.....	\$90
Procurement	240
Operations and maintenance.....	20
Total.....	350

In addition, it is estimated that \$100 million is spent on chemical warfare in Vietnam annually. Because CBW funds are not specifically identified in the Defense Budget, it has proved difficult to itemize CBW requests in the FY 1970 budget. The 1970 R & D request is for \$88 million. The Senate Armed Services Committee cut \$16 million of this amount allotted for offensive lethal weapons.

Rationale

The Soviet Union is estimated to have a considerable CBW capability, including offensive weapons, despite the fact that it is a signer of the 1925 Geneva Protocol banning first-use of these weapons. Our offensive weapons are designed to deter and to be used if our opponents have already done so. Peacetime activities are necessary to ensure preparedness in time of war.

Critique

Although the U.S. has stated that it would not initiate the use of CBW in wartime, it has not signed the Geneva protocol which

contains such language. American CBW materials are stockpiled not only in the U.S., but also abroad. The U.S. has been the world's biggest user of non-lethal chemical agents.

Other deterrents are more deadly to the enemy and less so to ourselves, and evoke fewer emotional and moral reactions in world opinion. Especially pertinent are the dangers posed to one's allies and self by the use of such weapons. Scientists have testified that use of bacteriological agents could rebound with disastrous effect, not only on troops but also on friendly populations. Their use in wartime would be far more dangerous than their use in peacetime laboratories and test facilities, where numerous accidents have nevertheless taken place.

Serious ecological problems are created by the need for eventual disposal of stockpiles of CBW agents. According to some scientists, pumping materials into the ground in Colorado has increased the danger of earthquakes. Dumping agents into the ocean endangers fish, animal, and human life and is in violation of international agreements.

Manpower Description

Military manpower includes questions of total force requirements, considerations of economy of force, and managerial problems of manpower and personnel. The Defense Department currently has 3.4 million men on active duty, 1 million in the Selected Reserve, 1.7 million in other reserve components, 200,000 in ROTC, 800,000 military retirees, and 1.2 million civilian employees.

Ceilings on troop strength, as well as authorizations for certain combat elements, such as ships, divisions, and wings, are provided by the Congress, but the ceilings on active forces have been suspended for some time. The Pentagon has only recently attempted to determine troop levels on the basis of the sizes and role of operating units around the world. Within such general guidelines on troop levels, the military departments manage their own manpower and personnel programs.

Costs

The Pentagon lists the average active duty military salary as \$5,947, not including costs of food, housing, training facilities, procurement, transportation, benefits, or the government's obligation to ex-servicemen. A more accurate estimate of the money saved by dropping one man from the active forces would be \$10,000. Figures are imprecise because there is no agreed method of calculating personnel costs.

The salaries of the 3.4 million active duty soldiers total \$20.2 billion, plus an estimated \$14 billion for support.

The Pentagon requests for obligational authority for personnel and housing this year are \$21.9 billion and \$6 billion respectively.

Rationale

The size of our present forces is related to our commitments around the world and cannot be changed without changing our commitments. An arbitrary Congressional cut in the size of our forces would impair our national security.

For example, NATO agreements determine the number of combat units we have committed to the European theater. NATO troop strength is determined by analysis of the deployment of Warsaw Pact forces in Eastern Europe, and unilateral action on the part of the U.S. would not only undermine the confidence of our NATO allies but would require excessive risks in light of the size of opposing forces.

With regard to manpower management, there are fundamental operational differences among the services, which require individual programs. Each service requires different administrative and leadership qualities for its top management, and imposition of

standardized manpower and personnel practices would undermine morale and efficiency.

Critique

Manpower levels depend on contingencies for which we unilaterally choose to prepare, rather than commitments. Any shifts in contingency planning would allow for reductions in manpower levels; contingency planning is a function of threat estimation and not our commitments. For the following reasons it should be possible to reduce force levels without reducing our commitments:

Warfare has become less manpower-intensive and more dependent on firepower and mobility.

While our strategic mobility has increased dramatically, our force levels have not declined but have in fact increased.

The probability of direct American intervention has declined as a result of our Vietnam experience.

Efficient manpower management methods currently exist which if adopted would radically increase efficiency and permit force level reduction.

Specialists in defense manpower management have recommended that the Defense Department provide Congress with an analysis of the relationship between contingency plans and force levels and between combat forces and support troops. They recommend that the Pentagon be directed to trade foreign basing for strategic mobility, and devise more efficient ratios of combat troops to supporting manpower. The Five-Year Defense Program should be the basis for manpower procurement, induction, training, assignment, retention, promotion, and retirement.

A standardized and automated manpower and personnel information system, including cost information, should be designed for the entire Defense Department, as was done for supplies a decade ago. Critics within the Pentagon have stated that because present information procedures are so undependable 125 men have to be given orders to Vietnam in order to get 100 men there. They charge that more men must be drafted than needed, because no detailed plans exist for manpower utilization. It is also reported that, at any given time, the Army cannot account for tens of thousands of men because reporting is so inaccurate.

Congressional critics have recommended that manpower costs be charged to a fixed operating budget of the military organization which uses the manpower, so that wasted manpower would cut into budget allocations and create an incentive for efficiency. To accomplish this, an improved accounting system for operations, such as project PRIME, should be immediately implemented.

The above problems, serious as they are, only scratch the surface. Until the Hubbell Report is enacted, servicemen with the same skills as civilians will still receive lower pay, causing hundreds of trained men to leave the service for similar but higher-paying jobs elsewhere. If they stay in the service, they change jobs so rapidly that they fail to achieve the technical or managerial expertise they would in civilian life. Until such problems are solved, the Pentagon will continue to waste billions of dollars annually on unsound personnel and manpower management.

Tactical air forces

Current mission

Tactical air forces have been designed for the following missions:

Establishing air superiority in combat zones.

Engaging in attacks far behind enemy lines.

Intercepting air attacks from opposing forces.

Providing close support for ground troops. These missions must be carried out in three theaters simultaneously and on short notice. Naval and Marine Air Forces are car-

rier-based and are designed to be operable anywhere in the world.

Critique

Estimates of enemy capabilities upon which our tactical air contingency planning is based come from within the defense community and are not necessarily the consensus of the intelligence community. Over the last ten years, the defense community's estimates of enemy capabilities have proved excessive—more than prudence would require. The defense community appraises the threat in terms of total aircraft inventory, while rating our own preparedness after large discounts for aircraft used in training and under repair or modification.

The Soviet Union has in the past manufactured more different advanced prototypes than the U.S., but put the less-advanced aircraft into mass production. They have deployed these aircraft only in the Soviet Union during the first several years of their useful life, and not equipped allied air forces with them. When experimental prototypes are shown, military intelligence predicts deployment of the aircraft. Thus the need to develop a new aircraft to maintain U.S. air superiority becomes immediate.

Instead of a well-managed research and development effort, what results is a crash program, like the F-14. Modifications became necessary to correct faults which might have been caught earlier if a more deliberate pace had been set. The later modifications often turn out to be almost as costly as the aircraft themselves, and the readiness and performance of the aircraft are seriously degraded by the low quality of the developmental effort.

The lead-time required to add a new aircraft to the force exceeds the time span of plausible intelligence estimates. Hence the Soviet policy of designing many advanced aircraft, but deploying only those models which respond to the probable threat. In the United States, defense planners put themselves in a position of authorizing the development of new tactical aircraft which may turn out to be unnecessary or over-elaborate.

Problems have also arisen in the military services' attempts to hybridize and over-electronicize our aircraft, and to try to develop aircraft which rely on unproven technologies. This practice is based on the assumption that as soon as new developments are available they can be included in modifications, making them easier to sell to the Congress because the basic aircraft are already in existence.

Critics also contend that the U.S. is getting very few aircraft for the price. The estimated cost of the Mig-21 is \$2 million; that of its American equivalent, the F-4 Phantom, is \$4 million. Estimates of the eventual cost of the Mig-23 are \$3 million; Pentagon sources state that the F-14A will cost more than \$12 million, and the F-15 only slightly less. Yet the F-14A and F-15 are responses to the Mig-23.

Force levels

The United States maintains 39 tactical air wings around the world, with a large supplementary force in the Reserves. Although these forces are supposedly justified by contingency planning, no specific number of aircraft is tied to a certain set of contingencies. In fact, the number 39 does not relate to contingency planning. The number of Marine air wings (4) was set by statute to ensure the survival of the Marine Corps. The 12 naval air wings depend on the number of carriers (15), which has never been justified, and on the Navy's role in providing support to the Marines. Hearings in 1968 indicated that the 23 Air Force wings were a compromise between what the Joint Chiefs requested and what Secretary McNamara thought necessary; no more rational explanation of the number has been made. The

Army has built up a considerable gunship force without authorization of any wings from anyone.

Tactical air force levels should be determined by the number of sorties per day each aircraft is capable of flying, distance of targets from bases, possible multipurpose roles, attrition rates, characteristics of enemy aircraft and ground defenses, effectiveness of ammunition and ordnance, and aircraft range and loiter time. While modern aircraft can perform these functions much better than their predecessors, aircraft are still replaced on a one-for-one basis and no consideration is given to reducing the total number of tactical air wings.

While the U.S. normally has five wings deployed on its carriers, in addition to several wings at overseas bases, including the most advanced attack aircraft, the Soviet Union has adopted no policy that could be called similarly aggressive. Published statistics concerning aircraft in Europe indicate that NATO has a much greater ground attack/deep interdiction and close air support capability than the Warsaw Pact forces. The "threat" from the Warsaw Pact is from a much more defensive force.

Plans which depict American planes fighting Soviet planes are unrealistic. If the Soviet Union attacked NATO bases in Europe, the conflict would be extremely difficult to contain. Once the conflict escalated, tactical air forces would become unimportant. Dog-fights between U.S. and non Soviet air forces are possible, but because the Soviet Union waits several years before selling or deploying new aircraft in allied or client nations, no crash development program for F-15 need take place.

AGMX-3, Condor, Maverick, and Tow (Air-to-Ground Missiles)

Description

AGMX-3 would be a long range Air Force tactical missile for use against targets such as bridges, buildings, troop concentrations, and anti-aircraft installations. It would have an all-weather guidance capability.

Condor is a long range Navy tactical missile for use against the same targets as the AGMX-3. It is T.V. guided and once it has been launched, the pilot of the launching aircraft can fly on to another target and direct Condor down at the same time. It has a range of 40 miles, weighs 2,500 pounds and has an electronic countermeasure capability which makes it effective against SAM anti-aircraft sites. It is to be launched from the A-6A.

Maverick is a short range Air Force tactical missile carrying a shaped charge for use against hard targets such as tanks and pill-boxes. It is T.V. guided and can be launched at supersonic speed from a low altitude. It has a range of under 10 miles and weighs 500 pounds. It is to be launched from the F-4, the A-7, and the F-111.

Tow is a short range Army tactical missile for use against tanks. It is wire guided and of limited range and speed. It is to be launched in its air-to-ground role from the Cheyenne helicopter.

Costs

The Air Force requested \$3 million for R&D for the AGMX-3, which was deleted by the Senate Armed Services Committee.

Condor per unit is one of the most expensive missiles ever considered for use against tactical targets. It has been under development for a number of years at a cost of \$100 million; total R&D estimates are now \$150 million. The Navy is requesting \$12.9 million for R&D in the FY 1970 budget. Estimates for production and deployment run as high as \$500 million.

The original R&D estimate for Maverick was \$95 million; the present estimate is \$143 million. The Air Force envisions a production run of 17,000 missiles at a cost of \$306 million,

or \$18,000 per copy. \$129 million has been spent for Maverick R&D to date. The FY 1970 budget contains \$39.6 million for R&D.

The Army is requesting \$156 million for Tow procurement. Only a portion of the missiles procured will be used in the air-to-ground configuration. The Senate Armed Services cut Tow procurement to \$142 million.

Rationale

These missiles represent the greatest technical revolution of the decade relative to other air-to-ground ordnance. T.V. guided glide bombs such as Walleye and Fat Albert have significantly reduced time over target and number of sorties; powered air-to-ground tactical missiles will improve this capability and provide even greater accuracy.

Maverick and Tow are needed to counter the Warsaw Pact tank threat in Europe and to improve our worldwide tactical air capability. AGMX-3 and Condor are essential to provide standoff capability against soft targets and to counter anticipated improved Soviet SAM capability.

Critique

The T.V. guidance systems of Condor and Maverick limit them to use during the day and in good weather. Tow is useless in its air-to-ground configuration without Cheyenne, which is unlikely to ever be deployed. At \$200 to \$300 million before deployment the cost of each system is prohibitive; when deployed, each missile will cost far more than its intended targets. The Pentagon has repeatedly admitted overlap in the capabilities of these and other missiles.

There is also an overlap of threat. The same Warsaw Pact tank threat, which did not materialize at the expected level, has been used to justify Tow and Maverick as well as two new tank programs. Moreover, this threat was computed not on the basis of tanks facing NATO but on the basis of total Warsaw Pact inventory.

Condor and AGMX-3 are being justified primarily on the basis of a new generation of Soviet SAM. Soviet SAMs had a less than 2% kill ratio (94 of 5500 hits) over North Vietnam and it is unlikely that even if a new generation of SAM were under development it would function much better. The U.S. already has sufficient radar-homing air-to-ground missiles, such as Standard-ARM and Shrike, to deal with any foreseeable Soviet SAM.

Beyond these considerations, critics assert that the Executive branch and Congress should consciously determine that we should be prepared for the contingencies for which Condor and AGMX-3 are being developed. They are useful only in full conventional war with the Soviet Union or in a limited war in which the U.S. is directly engaged against an opponent supplied with a new generation SAM by the Soviet Union.

AX (Attack Bomber)

Description

AX is a small turboprop attack bomber able to operate effectively at a large range of subsonic speeds, and possessing short take-off and landing capability. It is uncomplicated and easy to operate but can be used only when the U.S. has clear air superiority and when enemy anti-aircraft weapons are not sophisticated. Prime function is the ground support mission now assigned to the more expensive F-100, F-105, and F-4. AX will be armed with a variety of conventional bombs and strafing guns.

Costs

Initial design work has just begun. \$12 million requested for FY 1970 is for contract definition and engineering development. R&D costs are estimated at \$137 million, although the Air Force FY 1971 budget contains \$140 million for AX development alone. Unit cost is estimated at \$1.2 million.

Rationale

Because the engine design and electronics already exist, the aircraft can be developed in a short time and will be highly reliable and inexpensive. Our expensive and complex aircraft currently performing the ground support mission should be replaced by the reliable and cost-effective AX.

Critique

Critics assert that AX is clearly intended for counterinsurgency warfare. Questions about its technical details are less relevant than discussion of the assumptions underlying the need for an aircraft with its capabilities. AX is intended for use in Vietnam-type conflicts and the request for such an aircraft is indicative of Defense Department plans. Critics maintain that the Executive branch and Congress should define the role of the U.S. in future insurgencies before authorizing additional hardware to deal with such insurgencies.

As far as current needs are concerned, the highly efficient OV-10 at \$450,000 a copy is more than \$137.

Cheyenne

Description

Cheyenne is an Army helicopter for use as a weapons platform and escort vehicle for troop and supply-carrying helicopters. It cruises at 210 knots, faster than any previous helicopter, and has attack as well as escort capability. It carries rockets and machine guns, has heavy firepower, and electronic aiming and firing mechanisms. It replaces the Huey and Cobra—lighter, smaller and slower gunships.

Costs

The prime contractor for Cheyenne is Lockheed Aircraft. Originally, fifteen aircraft were to be bought in FY 1969 as part of a total package contract calling for procurement of 375 Cheyenne helicopters over a three-year period at \$875 million. However, the contract has been cancelled for default of the contractor. Technical difficulties encountered dealt primarily with the rotor which caused severe limitations in maneuverability. The original unit cost estimate of Cheyenne was \$992,000, though the actual unit cost, exclusive of R. & D. costs, amounted to \$2.2 million. The Senate Armed Services Committee has deleted all of \$16.5 million for R. & D. and all of \$429 million for procurement requested in the FY 1970 budget.

Rationale

The air-mobile divisions of the armed forces need faster helicopter escorts. Cheyenne will replace the less effective helicopters now operating in Vietnam. Such an aerial weapons system could supplement or replace tanks, artillery, and planes with heavy fire power in support of ground operations.

Critique

R. & D. problems encountered with respect to fire control and the avionics indicate that the helicopter cannot be produced within its original specifications. Also, the fixed-rotor concept has not lent itself to implementation as originally planned. The unit cost is already so high that it is unlikely that it can ever be made cost-effective.

In its attack role it largely duplicates existing tactical air capability and the proposed AX. With respect to its anti-tank role (when mated to the Tow air-to-ground missile), the Warsaw Pact threat it is designed to counter has not materialized. Its remaining use, in counter-insurgency, seems less likely after Vietnam.

CVAN-69 (Nuclear Attack Aircraft Carrier)

Description

The U.S. has maintained 15 Carriers and their escort fleets ever since World War II. They are used to provide bases for tactical

aircraft operations on short notice in places where land bases cannot be used. Each carrier is a base for about 75 aircraft.

The Joint Chiefs of Staff calculate that 13 carriers would be needed to fight 2 major/1 minor wars simultaneously in Europe, Asia, and Latin America, and that two more are needed as a reserve. During peacetime, two are stationed in the Mediterranean, three in the Pacific, and ten are not deployed.

The carriers are not designed to be used as permanent airbases, but rather as temporary bases until land bases can be established or constructed. Carriers are useful for quick response in a crisis situation. The Soviet Union has no carriers.

Costs

The FY 1970 budget contains a request for \$377 million to complete funding of a third nuclear carrier, CVAN-69. The estimated total cost of this carrier is \$510 million. Pentagon sources indicate that estimates have already been revised upward and that a final cost of \$700 million is not unlikely. Because a carrier never sails without its escort fleet, that cost must be added to that of the carrier—\$405 million for escorts and \$400 million for logistics ships. The total cost of a task force without aircraft is \$1.3 billion. The Pentagon estimates the yearly operating costs of a carrier at \$114 million, not including the costs of fueling and repair bases or operating the aircraft on the carrier.

Rationale

The carrier provides a mobility impossible to obtain otherwise. In addition, this form of airbase requires no basing rights or diplomatic negotiations to obtain, and does not contribute to the balance of payments problem.

Critique

Many military strategists argue that surface navies are themselves obsolete, because of the effectiveness of submarines and the limitations of anti-submarine warfare. The Soviet Union seems to have recognized this and invested heavily in attack submarine forces.

Carriers are only effective against enemies without submarines, and in situations in which the U.S. has air superiority. Thus they are only effective against weaker nations in limited wars. Because such wars are likely to develop slowly, quick-response forces may not be needed.

For the situations the U.S. is likely to face, land air bases can more effectively provide an air capability than carriers. The Air Force estimates the cost of a foreign base for a wing of aircraft at \$6 million. Since U.S. engagement would be on behalf of an ally, one can assume that such a base would be available. Should an ally deny landing rights, we might seriously question our commitment to defend him.

Many suggestions from inside and outside of the Pentagon have been made to reduce the cost of carrier operation:

Secretary McNamara had planned to reduce the carrier force to 12 in the 1970s.

The Air Force has the capability to convert existing airfields to air bases on extremely short notice, thereby reducing the need for carriers.

Carriers could be deployed without aircraft, and aircraft flown to the carrier when needed, thus reducing the need for a reserve wing for each carrier.

Since carriers are not defensible, they could be deployed without escort ships.

F-15

Description

The F-15 is a twin engine, single seat aircraft capable of speeds of 1350 mph for extended periods, and higher speeds for brief intervals. It has high maneuverability and acceleration. The F-15 is designed for air-to-air combat. It is the Air Force's air superior-

ity fighter, replacing the F-4 phantom by 1975.

The F-15 is to be armed with yet to be developed air-to-air missiles such as AIM-82 and RAM designed for close-in dogfighting. It will also be armed with a rapid-fire cannon using light, caseless ammunition. The F-15 is expected to be superior to the Soviet MIG-23.

Costs

\$45 million was spent on F-15 in 1969 for contract definition. Competitors are Westinghouse and Hughes Aircraft (radar); Pratt and Whitney, Fairchild Miller, North American, and McDonnell-Douglas (airframe); and General Electric (engine). Exact data on procurement costs or number of F-15's to be purchased is not available, but the unit cost is currently expected to be under \$12 million. One-for-one replacement of the F-15 for the F-4 could result in total procurement of 2,000 aircraft at cost of \$20 billion.

Rationale

In view of Soviet progress in developing effective fighters, it is essential that the U.S. have an air superiority fighter to counter the expected Soviet fighter threat, as well as for protection of ground forces and for escort purposes. The F-4 has reached the limit of refinement of engine and airframe, and except for the Navy's proposed F-14 there exists no other aircraft suitable for the important air-to-air mission.

Critique

The MIG-23, unlike the F-15, is a defensive interceptor. The MIG-23 is also still in development and the Soviets have often not deployed weapons they have developed. If the Soviets do decide to produce the MIG-23, it will require several years to deploy and 5 more years before it is distributed to allies of the Soviet Union.

At present, the NATO forces have four times the fighter inventory of the Warsaw Pact—an aggressive stance. The Warsaw Pact nations, on the other hand, have four times the NATO interceptor inventory—a defensive stance. Buying the F-15 would only further disrupt the European balance.

A better response to MIG-23 deployment, should it occur, would be tactical missiles, or a shift of F-4Js from Vietnam to Europe. Further F-15 development could easily force the Soviet Union to produce the very threat F-15 is supposed to deter, just as the threat of the B-70 led to the TALLINN air defense system which in its turn became a justification for AMSA.

F-14

Description

The F-14 is a multi-mission carrier-based fighter under development for the Navy. The A model, to be operational in 1973, is a swing-wing supersonic aircraft, using the engine and avionics of the now abandoned F-111B, redesigned for tandem seating, for fire control of existing Sparrow and Sidewinder air-to-air missiles and for the yet-to-be developed Phoenix system. Titanium is to be used in the airframe for lightness and maneuverability in dogfights. It is designed to replace the Navy's F-4 Phantom in the mid-1970's and, with the Phoenix missile system, to perform the fleet air defense mission of the F-111B. It could have air-to-ground attack capability. F-14B and C have the same airframe as the A model, but will have advanced technology engines. The C model will incorporate advanced avionics. The B model is expected to be operational in 1975, and the C model in the late 1970's. The A model will be retrofitted with the advanced B engine.

Costs

The F-14 is the outgrowth of an unsolicited proposal by Grumman in late 1967. The current estimate of the unit cost is \$8 million. This assumes a production run of 460

aircraft in the A and B versions, and the absence of technical problems and delays. Other estimates within the Defense Department run \$2 to \$3 million higher. Not included in the estimate are the costs of procuring the Phoenix missile (\$219,000 each) as well as the costs of other missiles and ordnance and part of the \$2 million unit cost for Phoenix avionics. Current plans call for replacement of most F-4's; eventual procurement of F-14 could go as high as 1000. Estimates for systems cost of F-14 (R&D, procurement, spare parts, training and maintenance) are classified, but unofficially reported estimates range from \$15 to \$30 billion over a ten-year period.

The FY 1970 budget contains \$275 million for procurement of 6 F-14A test models and \$175 million for F-14B&C R&D.

Rationale

The F-14 replaces the F-4 as an air-superiority fighter and escort, performs the fleet air defense mission of the F-111B, and has an air-to-ground attack capability.

While it meets a wide spectrum of possible threats, the key role of F-14 is air defense for carriers in a conventional war with the Soviet Union. It could also be used in a conflict with Communist China, in limited war, in show-of-force or deterrence situations and in nuclear engagements. By the mid-1970's present carrier-based airborne weapon-systems and aircraft will be outclassed in all roles by sophisticated Soviet capabilities.

Critique

A recently-resigned Defense Department official says the F-14 is the weakest and, at \$15 to \$30 billion in eventual cost, one of the most expensive programs in the FY 1970 budget.

Full scale conventional war with the Soviet Union seems unlikely now or in the foreseeable future. Nonetheless, if we prepare for the contingency, and if we assume Soviet use of the weaponry it currently has, then the U.S. carrier task forces appear to be exceedingly vulnerable with or without the F-14.

The Navy's existing aircraft, such as the brand new and proven F-4J, can do the job for show-of-force and deterrence missions, the roles for which carriers are best suited. There are also electronic counter-measures and point defense systems presently deployed or planned for the fleet for additional protection from the Soviet threat. Deterrence will be achieved as much by Soviet reluctance to directly engage American armed forces as by deployment of advanced fleet air defense capabilities.

The F-14 also is unnecessary in show-of-force roles which do not directly involve the Soviet Union. The F-4 has proved to be a match for the high performance MIG-21's in Vietnam. Even if the Soviet Union started to produce the more advanced MIG-23 its allies would be unlikely to get it for five years. The F-4J is equipped with 2 of the 3 air-to-air missiles planned for F-14.

Other contingencies in which it is contended that the F-14 is essential, such as conventional war with Red China, initial surge operations at the outbreak of limited war, or skirmishes off the coast of hostile countries can also be performed with existing aircraft. In limited war operations land-based aircraft could be relied upon in any event.

Additional technical considerations also call into question the desirability of a new multi-purpose fighter—particularly one designed to carry the cumbersome Phoenix missile. The heavy engines, complex avionics, and the Phoenix are the same problems that plagued the F-111B. Navy pilots themselves have expressed reservations about the complexity and weight of the F-14 for the air-to-air combat mission. Like SRAM and Sheridan, F-14, is being designed to operate with a

system (Phoenix) which does not yet work. In the best of worlds the F-14 would be only marginally superior to the presently deployed F-4 and a great deal more expensive.

Phoenix

Description

Phoenix is a long-range air-to-air stand-off missile designed to defend the fleet from air attack. It is extremely sophisticated with an electronic countermeasure capability. It weighs 1,000 pounds and requires a specially designed airframe currently under development for the F-14.

Costs

The cost is currently estimated at \$219,000 per missile. F-14 avionics associated with Phoenix will add an estimated \$2 million to the cost of the aircraft.

The FY 1970 budget contains \$18 million for R&D.

Rationale

Phoenix is needed to protect the fleet from air attack. It gives the F-14 an important standoff capability.

Critique

Since the Phoenix is designed for use with the F-14, the F-14 critique applies to the Phoenix. In addition, effective countermeasures that will render Phoenix obsolete before it is deployed are foreseeable. Because of its weight and the special airframe required to carry it, it seriously impairs the dogfight capability of any fighter to which it is attached. The complex avionics required in the mother aircraft add weight and unreliability.

Sea war forces

Current mission

The Navy is charged with several missions in addition to operating the Polaris deterrent:

Maintaining a long-term land war sealift capability to supply operations in Europe or in Asia.

Keeping quick-response tactical air forces ready for rapid deployment in crisis situations that could lead to limited war.

Providing amphibious forces for beach assault.

Protection of the fleet from air, surface, or submarine attack.

Insuring freedom of the seas and international waterways for world trade.

In order to perform these missions for the future, it will be necessary to completely modernize the fleet during the 1970s. Such modernization has been estimated to cost upwards of \$30 billion, but for this cost we will have a fleet that will provide for the above contingencies for the rest of the century.

Critique

The probability that future wars in either Europe or Asia will be long or limited enough to allow transoceanic supply of men and equipment is decreasing. If a European war escalated to the tactical nuclear level, ship operations would be greatly complicated. Even at the non-nuclear level, the massive Soviet undersea fleet would find large surface ships easy targets. ASW and fleet air defense have only limited capability to protect surface ships in such a contingency. With carrier task forces costing over \$1 billion each, an opponent would surely commit the cheaper forces to adequately destroy the carrier.

In Asia, the post-Vietnam probability of protracted non-nuclear engagement is also low unless we desire to continue to police the Third World, in which event a large surface fleet will be needed. We should decide upon our foreign policy goals prior to committing ourselves to a \$30 billion modernization of the fleet.

With regard to limited wars, the probability that national security would require us to fight such wars on short notice in re-

gions where tactical aircraft could not be land-based quickly is also low. Certainly any ally we chose to defend would be willing to provide us with landing rights for combat aircraft. Finally, it is unlikely that a surface fleet alone could deny a determined opponent's attempt to restrict freedom of the seas. Such an attempt would bring about other confrontations; the outcome would be determined elsewhere and the naval conflict would be of secondary importance.

Force Levels

The Navy considers the current fleet inadequate to perform the missions assigned the Navy if these missions are to be continued for the future. Items requested in FY 1970 to modernize the existing fleet are as follows:

[In millions]

1 nuclear attack carrier (total cost \$500-\$700 million) -----	\$377
2 nuclear guided missile frigates (total cost \$370 million) -----	264
8 destroyers (total cost \$600 million) --	360
2 landing/helicopter assault ships (total cost \$304 million) -----	288
3 fast deployment logistics ships (total cost \$187 million) -----	187
4 guided missile frigates (total conversion cost \$140 million) -----	44

These requests total \$1.5 billion; the complete FY 1970 request for shipbuilding and conversion is \$2.6 billion.

Critics suggest that what we are buying is another WW II navy and recommend that we concentrate on countering the real Soviet threat and acknowledge the technological obsolescence of a surface navy. The 15 attack carriers and 8 ASW carriers we currently maintain are extremely vulnerable to the 330 non-Polaris type submarines the Soviets have constructed since WW II, at a fraction of the cost of our surface navy. Anti-missile and anti-submarine defense is most unlikely to achieve the breakthrough required to guarantee even a small margin of safety for the fleet because of rapid advances in electronic warfare. The Soviet Union is entirely capable of frustrating any attempt we might make to resupply ground forces in Europe, intervene in limited conflicts, or guarantee freedom of the seas, if they so choose.

ASW (Antisubmarine Warfare)

Description

ASW is the detection, identification, surveillance, and, in time of conflict, destruction of enemy submarines. The United States has developed a complex system of airborne and sea-based detection systems and weapons designed to deal with the Soviet submarine threat.

ASW has both land- and sea-based elements. The land-based aircraft are used for surveillance of large areas all over the world. They drop buoys into the water to detect enemy submarines and are capable of dropping sub-killing torpedoes. Aircraft from 8 ASW carriers perform the same roles in areas inaccessible from land.

ASW carriers and escort ships carry sonar and other detection devices, and, like the aircraft they carry, can attack enemy submarines with torpedoes.

Our 56 "first line" attack submarines carry complex arrays of detection and kill devices. It is generally felt that our ASW technology is superior to Soviet technology, and that the U.S. would have the advantage in any undersea confrontation.

Costs

The costs of the ASW program are extremely difficult to pinpoint. The R. & D. costs for FY 1970 are \$472 million, 21% of the Navy's research budget. Other costs can only be estimated, since ASW does not constitute a separate funding category in the Defense Budget. It is also difficult to isolate the costs that relate solely to ASW. For example, a destroyer with ASW capability usu-

ally has land bombardment and anti-aircraft capabilities as well. Approximately \$1.2 billion is spent annually operating the ASW carrier forces. The best estimate of annual spending on ASW procurement is \$2.3 billion, bringing the annual total for ASW to over \$4 billion.

Rationale

The Soviet Union now has more than 375 submarines performing a variety of missions. Of this force, more than 50 are nuclear-powered. The force includes missile-firing submarines which pose a threat to the continental U.S., and submarines with a significant anti-shiping capability. Most indications are that Soviet submarine construction will continue at a steady rate for the foreseeable future.

Critique

ASW is extremely complex; the size of the ASW R & D budget suggests that much remains to be done before a high-confidence system can be achieved. The key characteristic of our ASW force is that so many diverse components are used to perform similar tasks. This diversity suggests that none of the individual components is very reliable. The history of complex electronics is studded with failures, and it has not been demonstrated that the ASW program is an exception.

Since our own Polaris forces have been said to be almost perfectly secure, one can assume that our ASW capabilities do not present much threat to the Soviet forces. Since it has been demonstrated that we cannot track our own Polaris submarines it seems doubtful that the Soviet Union can.

Critics assert that ASW is losing ground to new evasion and silencing techniques. Too often counterforce weapons systems are justified solely on the basis of threat. In the case of ASW, the threat from the Soviet submarine force is real; what must be questioned is whether we are getting \$4 billion per year worth of protection from our ASW program. A more effective approach to the problem might be to cut back ASW procurement and operations and spend the money developing a better system.

According to an article published by a Pentagon analyst, continued operation of carrier-based ASW, particularly with the planned but controversial VSX aircraft, is implausible. The major Pentagon document on the question recommended that VSX not be bought. Both Secretaries McNamara and Clifford have indicated that carrier-based ASW was not very effective but quite expensive.

Difficulties have also beset the MK-48 ASW torpedo. The program has been underway since 1964, but is still encountering technical problems. The FY 1970 budget contains funds for further R & D work, and Secretary Clifford stated that he believed "the solutions are now within reach". With the solutions only "within reach", however, the Navy is also requesting \$118 million for FY 1970 MK-48 Procurement.

Finally, although ASW constitutes approximately one-fifth of the Navy budget, there has been very little public discussion of the program. Information on ASW is overclassified.

S-3A (Anti-Submarine Warfare Aircraft)

Description

The S-3A, formerly designated VSX, is a carrier-based aircraft to be used in the detection, surveillance and, in time of conflict, destruction of enemy submarines. It will replace the Grumman S-2 Tracker series, and will complement the land-based P-3C ORION anti-submarine aircraft. The S-3A will carry an integrated sensor system, called VS/A-New, operated by a crew of four rather than ten needed on ORION. The primary sensor is the sonobuoy, dropped from the aircraft at cruising altitudes and laid in carefully se-

lected patterns for greatest coverage and data return. After detecting an enemy submarine, the S-3A is capable of dropping either depth charges or homing torpedoes.

The S-3A will be powered by two turbofan engines, giving it a speed over 450 miles per hour and a 2,000 mile range. It will have an all-weather capability and can carry rockets, missiles, and mines in addition to depth charges and homing torpedoes.

Costs

In early August the Navy awarded a \$461 million contract to the Lockheed Aircraft Corporation for the production of six R & D models of the S-3A over the next three years. The Navy has option to buy 193 production models. The ceiling procurement and R & D cost of the ten-year program is projected at \$3.2 billion, or \$16.2 million per aircraft, 50% of the cost of S-3A will be for avionics.

The VSX will be procured according to periodic production and performance achievements by Lockheed, rather than by a total package contract such as that which contributed to sizable over-run costs on the C-5A and to cancellation of the Cheyenne helicopter. Lockheed was the contractor in both instances.

Funding of the \$120 million first year's installment on the airframe contract depends on Congressional approval of the \$165 million requested for FY 1970 for S-3A R & D. The Senate Armed Services Committee has recommended that \$25 million be cut from the request because the 4-month delay in finding a contractor means this much initial funding can be deferred. First flight is expected in 1972 with fleet introduction the following year.

Rationale

The Soviet Union has over 375 attack and ASW submarines, of which about 50 are nuclear-powered. This force can contest our control of the seas by presenting a 3-dimensional threat consisting of strategic ballistic missile attack, stand-off attack against our naval forces with cruise missiles, and attacks on allied lines of communication with torpedoes and mines.

Recent significant developments presage the emergence of an even greater Soviet naval strength and operating capability. In any event Soviet submarine construction will continue at its current rate of about 12 per year for the foreseeable future.

Countering this threat can best be performed by aircraft such as ORION and S-3A. Continuous surveillance of enemy submarines over thousands of square miles of ocean forces them into evasive tactics reducing their effective range and time-at-sea.

Critique

The S-3A carries extremely complex computers and electronic equipment. Since each individual sensor system has severe limitations, the integrated system is unreliable. The responsibilities of the crew for computing and interpreting data, performing navigation and communications chores, and managing sonobuoys and ASW weapons, will make their mission almost impossible.

In order for the sensor system to be effective, the aircraft's ability to navigate with respect to the sonobuoys must be improved. The most difficult part of the ASW mission is fixing the aircraft's position relative to the sonobuoys, which drift with the surface winds. Without this capability, the range and direction data between the submarine and the sonobuoys is useless. The degree of accuracy required is far greater than that for normal navigation, due to the limited kill radii of ASW weapons. The S-3A can also be countered at little cost with electronic countermeasures.

The S-3A will have difficulty operating at night or during foul weather. At night a searchlight or a low-light-level viewing system is required. At night a searchlight pod

on the S-3A is limited by a low duty cycle, dark glare which interferes with the crew's dark-adaptation, and the ability of the quarry to detect the light.

Aside from the technical difficulties of the S-3A, the assumption that we need to deploy carrier-based ASW aircraft at all must be challenged. Land-based ASW aircraft currently cover 80% of the ocean surface. We do not need to police areas such as the Indian Ocean where land-based ASW aircraft cannot be deployed. Strategic missiles launched from the Indian Ocean could not reach the U.S. All shipping channels used by our surface and merchant fleets can be protected by land-based ASW aircraft in time of hostilities. Secretaries McNamara and Clifford maintained carrier-based ASW to be cost-ineffective; the major Pentagon document on ASW recommended S-3A not be bought. It is a marginal system for a low probability contingency and does not justify an expenditure of over \$3.2 billion.

LHA (Landing/Helicopter Assault Ship)

Description

LHA is a large, conventionally-powered ship which can land 2,000 troops with equipment by helicopter and landing craft in an amphibious operation. The ship will replace four types of ships in the present amphibious fleet, and, like FDL, will be able to unload smaller vessels within its own hull.

The concept emerged from a comprehensive review of the role of amphibious forces while Robert McNamara was Secretary of Defense. The mission of the amphibious forces is to be able to land one marine division in the Pacific area and two-thirds of a division in the Atlantic area simultaneously and on short notice. Older, slower ships would continue to be a part of the force.

Costs

In FY 1969 the cost of the first LHA was estimated at \$153 million; the cost of an additional eight ships was to be \$122 million each. For FY 1970 the estimate has risen to \$185 million and \$140 million, respectively. The increase in price is attributed to inflation, better estimating methods and higher shipbuilding costs. No estimates of operating costs for the LHA are available, but operating costs for amphibious forces are estimated at \$950 million annually.

The first LHA was authorized last year at the \$153 million price, with \$63 million for advance procurement. The FY 1970 request is \$270 million for two LHAs, and \$17 million more for advance procurement. The Senate Armed Service Committee recommended approval of the request.

Rationale

The present fleet of amphibious ships is obsolete. Previous classes of ships have dwindled to a few survivors of each class, creating operating, training, and maintenance problems. LHA can solve all these problems. By letting industry design the ship, millions of dollars have been saved by application of modern mass-production techniques matched to the shipyard which will build LHA.

The amphibious forces provide the U.S. with the capability to seize advance bases for initial operations, to set up staging areas, and to gain beachheads to enable more substantial follow-on forces to mount an offensive, in the event of a major war. The United States must also be able to meet less drastic contingencies with varying degrees of force. Amphibious forces are essential for flexibility and for quick response capability.

In Vietnam, amphibious operations have proved that amphibious forces can carry out operations in an insurgency environment. There are amphibious squadrons prepared to intervene whenever necessary in the Mediterranean and in the Caribbean. This kind of readiness is necessary to deter conflicts or to defend threatened U.S. interests.

Critique

LHA is a perfect example of how hardware determines policy. The ships are being justified on the basis of replacing existing inefficient equipment, rather than on a need created by a new threat such as a hostile island power or an interventionist foreign policy projected for the 1970's and 1980's. An examination of likely future wars reveals few plausible contingencies requiring an assault by troops across a beach. LHA could be deferred until decisions are made on the role of amphibious forces in future foreign policies.

Many critics not only recommend delaying LHA, but mothballing the older ships in the amphibious fleet, with resultant savings of up to \$190 million annually on ships alone.

In a major war, an amphibious landing would be impossible if either submarines or tactical nuclear weapons were used. If amphibious forces can only be used in limited wars, it must first be decided where we will be involved in these wars before investing \$500 million plus in LHA. Amphibious landings in Vietnam might have been justified to keep the troops in practice, but the landings were unopposed and did not prove anything except that we were still using World War II tactics against the Viet Cong.

Airlift/Sealift forces

Current mission

Requirements for mobility are based on the assumption that we must prepare for large-scale contingencies in Asia and Europe and a lesser contingency in this hemisphere. We plan the capability to build up simultaneously and rapidly in these theaters for conventional or tactical nuclear land warfare.

We assume that threats to our national security can be mounted by enemy forces in three hemispheres simultaneously. This dictates that an enormous amount of air/sealift capacity be available on short notice. If we instead planned to be able to respond to 2½ Berlin-type crises within 18 months—not simultaneously—the amount and readiness of air/sealift needed would be less than current estimates.

The current mission calls for air/sealift which is so ready that we can escalate a conflict very rapidly. In the past we have relied on ships and planes in commercial service during peacetime. With the advent of FDL we are moving away from convention vessels toward permanent peacetime shipboard storage of war material near theaters of operation.

We must also provide men and equipment to fight different kinds of wars. As new tactics for the deployment of general-purpose forces have been devised, such as the Airmobile Division, heliborne amphibious assault, counterinsurgency, and tactical nuclear war, new mixes of men and equipment are required. These new demands have created new needs for air/sealift capability.

Critique

Critics of the air/sealift program contend that plans for response to three crises simultaneously should be reviewed. As long as we expect to be world policemen, we will need large numbers of aircraft and ships to transport our forces anywhere on short notice. These forces will have high investment and operating costs. The more we assume we must intervene on short notice, the less this cargo-carrying capacity will be available for peacetime commercial use.

The length of the conflicts for which we prepare also determine what supplies will be needed and how useful sealift, as opposed to airlift, will be. If wars are expected to be short, they will be decided by supplies already in the theater and by airlift. Critics assert that our logistics planning and the air/

sealift capacity it requires are based upon false expectations of long wars.

Ships carrying supplies for use against a European ally of the Soviet Union, to say nothing of the Soviet Union itself, would be attacked by Soviet submarines; defending these ships would be extremely difficult. In a war which assumed attacks on American harbors, loading supply ships would become impractical as would unloading in the zone of conflict because port facilities are extremely vulnerable to tactical nuclear weapons. In war where control of the air was not assured, subsonic transport aircraft would be vulnerable to enemy attack in flight or unloading.

In the early 1960's a comprehensive plan for airlift/sealift requirements and capability into the 1980's was devised. A mathematical model of global limited-war contingency requirements, taking into consideration threat, desired response, patterns of basing troops and supplies, and the capabilities of the air and maritime transportation industries, was used to provide approximations of the capacity which would be required during the years covered by the model. The calculations indicated that a mix of commercial and special purpose equipment would be the most efficient solution. The special-purpose systems which resulted from this review were the C5A and the FDL. Current requests for airlift/sealift are based on this model.

This model should be re-analyzed to determine if the assumptions upon which it was based are still valid. If the assumptions are no longer valid because our national security requirements no longer require the capability to meet three widely separated serious contingencies arising simultaneously, it follows that our airlift/sealift requirements would diminish.

FDL

Description

FDL is a large Navy cargo and troop deployment ship with a capacity seven times that of World War II vintage ships. It carries helicopters and self defense missiles and can store pre-positioned material for long periods of time offshore near a possible combat theater. FDL can load and unload small vessels within its hull structure, permitting offshore unloading. Its purpose is the rapid resupply and equipping of airlifted forces, requirement of forward defense tactics. Because it is a special-purpose ship, and because of its pre-positioning capability, it will not be usable for commercial shipping during peacetime.

Costs

Originally the Defense Department planned for 30 FDLs at \$47 million each, for a total cost of \$1.41 billion. The request was included in the FY 1968 and 1969 budgets, but was entirely deleted by Congress each year. For FY 1970 the Pentagon asked for \$187 million for the first three ships—a unit cost of \$62 million. The average cost of 15 ships is expected to be \$55 million, up \$8 million each from the original estimate. The first ships are more expensive because of tooling-up costs.

A parallel expansion of the charter fleet is to be accomplished by constructing 30 conventional ships, each with half the capacity of FDL but without its loading features. These ships would be used by commercial interests during peacetime, and would be built privately with Defense Department contracts guaranteeing enough business to return investment. While the Senate Armed Services Committee deleted the request for three FDLs it did not comment on the charter-ship plan. Estimates of the annual operating cost of FDL are \$1.65 million, compared to \$1.35 million for the existing sea transport.

Rationale

Since future wars, except insurgencies, are likely to build up quickly, we need active and mobile forces. Such a capability requires forward basing of both men and equipment.

Pre-positioned ships such as FDL can proceed to the conflict, unload, and continue to support combat units by transoceanic voyages. Other ships that might serve the same purpose lack the ability to handle the special cargoes FDL can, are not capable of offshore unloading and loading, and can deliver far fewer supplies at greater cost.

Requirements for FDL were determined after careful analysis and fully take into account the possibility of employing existing shipping. Accordingly, the minimum number of FDLs are being requested.

Beyond these considerations, the design and production techniques applicable to FDL will go far to modernize the American shipbuilding industry, and the advantages to the industry will more than compensate for relatively small losses in charter revenue.

Critique

Critics question the assumptions upon which overall force levels are based. If we adopt something less than the 2 major/1 minor doctrine, the number of FDLs required diminishes. As the production run is shortened, unit cost rises, making other designs more attractive.

FDL is also provocative. Storing munitions and equipment around the world signifies an intention to police the world. The decision to procure and deploy these ships should follow, not precede, a political decision to continue or modify post World War II U.S. foreign policy. FDL is designed to enhance our ability to intervene rapidly—precisely the kind of action which could escalate to more drastic conflict.

Most of the companies which bid on FDL were aerospace firms; the ships may not be built in a traditional shipyard at all. This could make even more precarious the survival of an industry which would be vital to us in a long war if we are to transport supplies in American ships.

C-5A

Description

C-5A is a huge Air Force jet cargo transport. It is subsonic, can use airfields which present cargo planes cannot, and has special loading features. It has 4½ times the capacity of the most recent Air Force transport, the C141, and can carry bulky items which other aircraft cannot, such as tanks, bridge parts, and helicopters. It also carries the operators of such equipment. The Defense Department plans to purchase a total of 115 aircraft.

Costs

When it was drawn up, the C-5A contract was a new idea in defense procurement, a "total package" contract covering R & D, testing, and procurement. The contract stated an estimated target price, which paid the contractor, Lockheed, a fair profit. It also stated a higher ceiling price, up to which the government would absorb 70% of an increase, but above which the costs would be completely absorbed by Lockheed. Thus, a low price would bring Lockheed a high profit while a high price would cut into profits.

The original target cost was \$2.9 billion for R & D and 115 planes. By October, 1968, Air Force estimates indicated costs of \$4.5 billion for the same 115 planes. Later, \$486 million for construction and spare parts was added to the \$4.5 billion.

These increases in quoted prices have become the greatest procurement scandal in several years. The Air Force was inexplicably late in discovering the increases and for a variety of reasons, attempted to minimize or hide the overruns.

The Air Force attributes the cost increases to inflation, technical difficulties, and an adjustment for a larger aircraft—all, of course, beyond Air Force control. Independent Pentagon analysts charge that the fundamental problem is one of management attitude, that the Air Force staff simply does not provide manufacturers with incentives to be

efficient or to develop high quality systems. The C-5A contract also has loopholes which, combined with the Air Force's attitude toward the contractor, minimize incentives for contractor efficiency and instead make it more efficient for the contractor to be wasteful. The most costly loophole identified to date is the formula which re-prices the second production run according to increased costs in the first run. The repricing formula provides a "negative incentive" to Lockheed, in that the amount of money the company loses by overrunning the ceiling price on the first run is exceeded by the company's increased income from the second run. This is the so-called "golden handshake" clause. The Air Force has acknowledged this flaw in the contract.

In spite of the price increases, the Air Force has not sought alternative sources for airlift capability or reconsidered the size of its order.

The FY 1970 budget requests C-5A authorizations as follows:

[In millions]	
Research and Development.....	\$34.2
Procurement:	
Aircraft	533.0
Spare parts	209.8
70 percent of Lockheed's over-target costs	225.0
Total	1002.0

Of this, the Senate deleted \$50 million because a 6-month delivery delay meant spare parts could be deferred.

Rationale

The C-5A is part of a strategic mobility plan including conventional air-sealift and FDL; without FDL, the need for the 120 planes is even greater. Even allowing for the increase in costs, the C-5A allows dramatic reductions in ton-mile cost and speed of shipping military supplies to forward areas of a combat zone, necessary to a forward defensive strategy.

C-5A is preferred over other large jet transports because of its short takeoff and landing ability and because it provides unmatched ease in loading. Its landing gear "kneel" to put the cargo floor at truck bed level, and the dimensions and strength of the floor simplify the loading process. Although there are shortcomings in the contract, it still exerts pressure on the contractor because should the government decide not to exercise its option to buy the second production run, Lockheed will suffer serious financial loss.

Critique

The C-5A was originally part of a mobility package that included FDL and was based on assumptions that must be re-examined. The mobility package is designed to provide the U.S. with the ability to intervene on short notice in any area of the world. Before proceeding with all or part of the mobility package, the question of whether we desire this capability for the 1970s at a cost of billions should be debated at greater length. The FDL has been repeatedly cut by the Senate precisely because the Senate Armed Services Committee believed that the U.S. did not require such capability.

There are in any event several less expensive alternatives that would provide sufficient air mobility for any contingency for which we need be prepared. The Civil Reserve Air Fleet currently has 465 707s and DC-8s available on short notice, and the Air Fleet is capable of considerable expansion.

If in fact a new jumbo transport is needed, the government should reconsider the Boeing 747, which was submitted in competition with C-5A in 1965, not chosen, but developed successfully on a commercial basis. The government has grounds to cancel the second run of the C-5A. While C-5A has some special characteristics, these special characteristics are not worth billions of dollars.

HIGHWAY BEAUTIFICATION— FACT OR FICTION

HON. RICHARD D. McCARTHY

OF NEW YORK

IN THE HOUSE OF REPRESENTATIVES

Thursday, September 25, 1969

Mr. McCARTHY. Mr. Speaker, in 1965, the Congress passed the Highway Beautification Act. The purpose of that act was to preserve some of the natural beauty of our magnificent country. The act was an early hesitant step toward a goal of intelligent use of our natural resources. It was designed to prevent the thoughtless destruction of views of our countryside that each generation of Americans should have the opportunity to enjoy. It was designed to stop the use of our roadsides as junkyards or garbage heaps. It was designed to emphasize the forests of pine or redwood or oak, not the forests of advertisements or billboards.

In some parts of our country the Highway Beautification Act has been put to good use. The State of Vermont has adopted legislation that has removed the hoards of billboards that threatened to blot out the very beauty that attracted tourists. In other parts of the country, separate roadside areas have been constructed and attractive advertising combined with telephones that can be used to make reservations are made available to the motorist. In these areas the motorists have the best of both worlds, the trees, hills, the plains, and the fields. It is unfortunate that these areas are the exception rather than the rule.

The Census Bureau and other population forecasters now tell us that there will be 300 million Americans by the year 2000, one-half more than the 200 million alive today. This population growth will put pressure on our undeveloped lands, our rural areas near our big cities, and the highways that link these urban areas. Unless we act with sense—unless we take the trouble to prevent the ruin of these undeveloped areas with unattractive, unplanned, and uncontrolled roads and highways—we will foul the heritage that we turn over to the next generation.

I urge that every Member of Congress consider the problems of intelligent use of our land and the incorporation of esthetic factors in the planning of new towns, cities, and highways. There is no better place to start than on the Highway Beautification Act of 1965. Rather than watching this law decay and become a dead letter, I urge that we take steps to strengthen it.

In a perceptive article appearing in the Washington Post on September 15, 1969, Edward P. Morgan comments at length on the problems that highway construction and urban expansion has had on the beautiful and unique Shenandoah Valley. I am including his remarks in the RECORD for the information of my colleagues:

THE UGLIFIERS ZERO IN ON A LOVELY
VIRGINIA TOWN

(By Edward P. Morgan)

LEXINGTON, VA.—What is the country coming to? The answer is simple—a dead end,

buried under asphalt and marked by the standard and beautiful tombstones of the times: the flashing neon sign, the billboard, the gas station, the motel and the hamburger stand.

It is a hard job to ruin the looks and the life of this lovely town, first laid out in 1777 in the verdant Shenandoah Valley, but the highway builders and the civic developers are in the process of doing it—and thus keeping faith with touching dedication to that new national ideal of polluting and uglifying the land and the communities on it as fast and as thoroughly as possible.

Lexington's historic charm is not quite lost yet. Ante bellum mansions still sleep in the shade of gracefully aging trees on narrow streets. Almost in the center of the town rise the red brick and the stately white columns of Washington and Lee University, whose green, rolling campus surely is one of the most delicately handsome left in the land. Here is where after the Civil War Robert E. Lee presided over Washington University before it became Washington and Lee and here, in a dignified tomb, is where he is buried.

Adjoining the campus is the austere but equally proud home of Virginia Military Institute, where Stonewall Jackson once taught (he too is buried in Lexington), and where Gen. George Catlett Marshall, one of the 20th Century's most distinguished and civilized leaders, went to school as a cadet.

But despite this heritage and the legacy of some of the (once) most beautiful countryside in Virginia, Lexington is almost certainly doomed. Until recently she had enjoyed a reprieve in being off the beaten path. Now, however, Interstate 81, an arching concrete link in the nation's chain of super highways, is crunching through the outskirts, leaving poisonous exhaust fumes and the litter of roadside commerce in its wake, like floatsam and jetsam driven onto a pristine beach by a hurricane.

Just south of Lexington the road maps mark a scenic wonder called Natural Bridge, already so beset with the hysterical hideousities of commercial exploitation that it might as well be some cantilevered concession in a traveling carnival. Further down the western flank of the Blue Ridge, around Roanoke, before 81 thrusts into Tennessee, gigantic road signs, some of them 50 feet high and more, embellish the view. They are an inspiring tribute to the ingenuity of the American entrepreneur in spitting on the spirit if not the letter of the federal highway legislation diffidently designed to reveal something of the landscape besides billboards and auto junkyards.

Indeed this section of Route 81 is just one more exhibit to support the recent New York Times expose of what a mockery the four-year drive to tidy up the nation's highways has become. But the problem is not just beauty and it is more than skin-deep.

Here is a travel tip: on your next commute, take with you a new book by A. Q. Mowbray, a devastating study of the federal highway program, aptly titled "Road to Ruin." At the first major traffic jam en route, you can sit back, relax and enjoy such items Mowbray has expertly unearthed from the roadfills and extracted from the girders in the overpasses of our motorized obsession as the following:

There are 3,600,000 miles of roads and streets in the United States, one mile for every square mile of the nation's total land area, and the mileage is steadily lengthening. "The United States," Mowbray writes, "is swiftly destroying its cities and its wilderness with highways."

By 1980, according to estimates, Los Angeles will have given up 34 square miles to freeways—an area equal to the size of Miami.

Highways, calculates one University of California expert, are driving from their condemned homes approximately 90,000 persons a year—the majority presumably in poor

areas. This hardly decreases the tensions of the slums.

The 41,000-mile interstate system, originally price-tagged at about \$40 billion may actually cost \$60 billion or more. The cost of a city freeway today is often at least \$10 million *per mile*. "This nation," says Mowbray, "has apparently dedicated itself to the proposition that there is no higher good than the unimpeded movement of automobiles, and there is no higher use of their land than to provide for that movement."

He concludes that such drastic steps as limiting by fiat the manufacture of cars and trucks, the closing of state borders to motor traffic, the destruction rather than expansion of freeways, garages, bridges and tunnels must eventually be taken "if we hope to save ourselves. Population grows, asphalt spreads, and land diminishes, and there is a finite end to it all. Long before the limit is reached, the environment will have become utterly hostile to human life."

Some years ago a former government official told me there was no more powerful combine operating in Washington than the so-called "highway lobby" because it consisted of so many influential and interlocking parts: the car capital of Detroit, the steel industry, tire manufacturers, the cement business, labor, unions, politicians and proud and greedy local citizens who measure "progress" by the truckload of paving materials and the profits they will bring.

The fact that such a myopic outlook is ruining the republic doesn't seem to matter. That's the way it is. Who cares if he travels over the hill to destruction if he can ride on a six-lane highway?

RESOLUTION ON WAR IN VIETNAM

HON. ROBERT W. KASTENMEIER

OF WISCONSIN

IN THE HOUSE OF REPRESENTATIVES

Thursday, September 25, 1969

Mr. KASTENMEIER. Mr. Speaker, following the Wisconsin Democratic Party Convention resolution that American troops be withdrawn from Vietnam, the Democratic Party of Dane County, the second most populous county in Wisconsin, earlier this month amplified its views with respect to the administration's failure to show real progress in bringing the war to an end.

While I fully realize that a divergence of opinion exists among my congressional colleagues, and even among my fellow Democrats as to how to bring about peace in Vietnam, I commend to all concerned citizens the resolution adopted by the Dane County Democratic membership which urges "a massive national effort to return our Government to the path of peace."

The resolution follows:

At the 1969 State Democratic Party Convention in Stevens Point the Dane County Democratic Party joined with others in calling for the immediate withdrawal of United States Armed forces from Vietnam.

Since then President Nixon has done little to bring a just and honorable end to this ghastly conflict. His current proposals to withdraw 35,000 more troops from Vietnam and to temporarily suspend the draft calls are admittedly designed to defuse the anti-war movement. They are Nixon tricks, for which he is well known, to fool the people and to promote their apathy.

The Democratic Party urges all citizens not to be misled, but to continue their firm, open,

and active opposition to the war and to the militarization of our country. It demands the immediate cessation of the killing and devastation. It condemns the continuing sacrifice of American lives. It insists on the return of all American troops in Vietnam to their homeland and the return of Vietnam to the Vietnamese. And finally we urge all citizens to continue to voice their anti-war resolve through all organizations at their disposal and in all manners which their convictions and consciences dictate. What is required at this moment is a massive national effort to return our government to the path of peace. Only continued pressure from the people will accomplish this end.

A GOVERNMENT'S DUTY IS TO
PROTECT ITS PEOPLE

HON. JOHN R. RARICK

OF LOUISIANA

IN THE HOUSE OF REPRESENTATIVES

Thursday, September 25, 1969

Mr. RARICK. Mr. Speaker, I note a rising crescendo of attacks on our friends and allies in southern Africa. It is interesting to observe which nations sustain the most strident and prolonged attacks from the far left. Invariably they are the nations which have succeeded in protecting themselves from the internal subversion planned by the international Communist conspiracy.

From time to time we should look at our own history in relation to the international problems of today. The rest of the world certainly does. This is particularly appropriate when we consider the nations of southern Africa. Their history parallels ours, and that parallel cannot be ignored.

The United States, the Republic of South Africa, and Rhodesia, at different times, became independent by the unilateral severance of their ties with the British crown. In each case, independence was not achieved by the revolt of indigenous natives against the rule of a colonial power. It was, rather, the act of the civilized colonials who acted to preserve their civilization by the replacement of a faraway sovereign who had become tyrannical and unresponsive to the needs of the people. Those who deplore the status of the native populations of Southern Africa would do well to reflect on the history of our treatment of the indigenous savages who occupied our land.

Again recalling our own history, we have had experience in our early days and recently in the necessary exclusion from the United States of foreigners whose presence within our borders was deemed inappropriate by our Government.

While George Washington was yet President, France and England were at war. Our established national policy was one of neutrality. Americans, however, found themselves divided into pro-English and pro-French political factions.

At this point the new French Ambassador, Citizen Genêt, undertook a deliberate policy of interfering in the internal affairs of the United States by fanning the pro-French sentiment and attack-

ing the Government's policy of strict neutrality. He was phenomenally successful. President Washington, in his house in Philadelphia, was physically endangered by mobs aroused by Genêt in support of France. Ultimately it was necessary to ask for his recall by his government.

Mr. Speaker, those of us who have the honor to serve our constituents as Members of this House must realize that in foreign countries we are frequently regarded as spokesmen for the United States rather than as representatives of our constituents. It behooves us to govern our conduct accordingly. This means that we must voluntarily exercise such restraint in our foreign appearances—whether they be personal or official—as to minimize the possibility of needlessly strained diplomatic relations.

It could not conceivably serve the interests of the United States for Members of this body, at this time, to make controversial appearances in many foreign countries to address certain groups, visit certain individuals, or espouse certain principals. Suppose, for example, the furor which it would create for Members to visit Czechoslovakia for the purpose of publicly supporting deposed party leader Dubcek. Or to visit Israel for the purpose of publicly advocating, contrary to the policy of the Israel Government, that troops be withdrawn into their own boundaries.

No government worthy of the name can permit foreigners, whatever their rank, to enter their borders for the purpose of creating or magnifying domestic controversy, no matter how much good such a visit might do the foreigner in his own country. We learned that lesson from Citizen Genêt. Our Government applied it more recently to support the policy of the party in power when two African leaders, the late Moise Tshombe and Rhodesian Prime Minister Ian Smith, were denied unconditional entry into the United States.

Mr. Speaker, I include a concise summary of the Genêt affair in my remarks:

FRICITION WITH FRANCE, 1789-1800

THE ALLIANCE BECOMES AN ENTANGLEMENT

As long as the wars of the French Revolution were confined to the continent of Europe, the United States was able to avoid serious international friction. But the picture became dangerously clouded when, on February 1, 1793, France declared war on England. A cry rose from thousands of Jeffersonian Republicans that America should rush to the assistance of the nation that had helped her in the hour of need. The common foe—so it appeared—was Great Britain, that ancient enemy and oppressor of human liberty, that arrogant power which seemed to be making every effort to strangle the United States in the cradle, "Americans, be just!" proclaimed the *New York Journal*. "Remember . . . who stood between you and the clanking chains of British ministerial despotism."

President Washington now found himself in an agonizing predicament. His fixed policy was to avoid hostilities at all hazards while the nation was still unstable. Yet by the Alliance of 1778 the United States was bound "forever" to assist France in the defense of her West Indies. Unless America flagrantly disregarded her now distasteful obligations, she could scarcely avoid the very calamity that the Hamiltonians were seeking to avert—war with England.

At this critical hour Washington turned to his Cabinet for advice as to whether the pacts with France should now be considered binding. Hamilton, who had no love for the French or the French alliance, argued that the treaties were not in full force because they contemplated only a defensive war and because they had been negotiated with the French monarchy under Louis XVI—and both the monarchy and Louis XVI were dead. Jefferson, though by no means desiring war with England in behalf of France, insisted that simple honesty should prevail:

The treaties between the United States and France, were not treaties between the United States and Louis Capet [Louis XVI], but between the two nations of America and France; and the nations remaining in existence, though both of them have since changed their forms of government, the treaties are not annulled by these changes.¹

As it turned out, France did not call upon the United States to defend her West Indies. The Washington administration, therefore, was not compelled to take an official stand on the applicability of the Alliance of 1778. The course pursued by the Paris officials was not dictated by solicitude for the United States but by purely selfish motives. If the Americans had possessed a strong naval and military force, France would almost certainly have insisted that they live up to their treaty obligations. But since the United States had no considerable navy and since the Americans, as neutrals, were able to ship food to both France and her hungry West Indian colonies, the expected demand was never made. America could be far more useful as a friendly feeder than as an ineffective fighter.

Washington also asked his advisers if, in their opinion, he should receive a diplomatic envoy from the newly created French republic. This was an important decision, for the reception of such a person would mean official recognition of his government. Jefferson, applying the "consent-of-the-governed" philosophy of his own Declaration of Independence, had already outlined in classic form a recognition policy for the United States.

We certainly cannot deny to other nations that principle whereon our government is founded, that every nation has a right to govern itself internally under what forms it pleases, and to change these forms at its own will; and externally to transact business with other nations through whatever organ it chooses, whether that be a King, Convention, Assembly, Committee, President, or whatever it be. The only thing essential is, the will of the nation.²

This policy—in effect a corollary of the Declaration of Independence—was adopted by President Washington and was consistently followed by all his successors, with minor departures, until the time of Woodrow Wilson.

NASCENT NEUTRALITY AND CITIZEN GENÉT

During these months of unbridled political passions, the danger was ever present that some irresponsible persons might plunge the country into war. Washington therefore discussed with his advisers the desirability of issuing a pronouncement that would cool the ardor of the more bellicose spirits. Every member of the Cabinet strongly favored a policy of nonbelligerency, but there was not unanimous agreement on the manner of announcing it.

After considerable argument the document now known as Washington's Neutrality Proclamation was given to the world on April 22, 1793. Though its purpose was unmistakable,

¹ A. A. Lipscomb, ed., *Writings of Thomas Jefferson* (Monticello ed., Washington, 1904), III, 227-228 (April 28, 1793).

² *Ibid.*, IX, 7-8 (Jefferson to Pinckney, Dec. 30, 1792).

the declaration did not, curiously enough, contain the word "neutrality." It merely stated that the conduct of the United States should be "friendly and impartial toward the belligerent powers," and that American citizens found guilty of illegally assisting the warring nations would be prosecuted. Congress provided the appropriate teeth when it passed the Neutrality Act of 1794. The Neutrality Proclamation itself was a notable document in the evolution of American policy, primarily because it helped set the ship of state on a course away from Old World embroilments.

But the proclamation came as a bitter pill to the great mass of ardent Jeffersonians who were expecting active intervention on behalf of France. They denounced government "by proclamation" and showered upon Washington's head a storm of abuse that sorely tried his spirit. But in the end saner counsels prevailed, and most Americans accepted the proclamation as a wise and necessary measure.

The neutrality policy of Washington was given its severest test by the conduct of the first minister from the new French republic, Citizen Edmond Genêt. Although only thirty years of age, Genêt had behind him a remarkable record of intellectual achievement and diplomatic experience. Unfortunately, he lacked balance and sound judgment. Aflame with enthusiasm for the ideals of the French Revolution, impulsive, passionate, and hot-headed, he was at times all sail and no anchor.

Genêt reached Charleston, South Carolina, early in 1793. There he was greeted with a wild enthusiasm that would have turned the head of a less excitable man. Although he could not act officially until he had presented his credentials in Philadelphia, he was so carried away by the huzzas of the masses as to engage immediately in questionable activities. In disregard of American neutrality, he sent out French privateers that returned with British prizes, some of them taken within the three-mile limit. He also opened negotiations with a number of American frontier leaders, notably the disgruntled George Rogers Clark, with a view to attacking Spanish territory in Florida and Louisiana. (It will be remembered that from 1793 to 1795 Spain was fighting against France on the side of England.)

Genêt might have proceeded to Philadelphia by any one of three routes: by sea, by land up the coast, or by land through the back country. Whether by accident or design, he chose the back-country route—the one that best lent itself to his purposes. The people in this region were small farmers who favored the democratic, pro-French, Jeffersonian Republican party and opposed the aristocratic, pro-British, Hamiltonian Federalist party. As a consequence, Genêt's leisurely journey through the back country quickly turned into one long ovation. The trip, which might have been made in less than a week, was dragged out over twenty-eight days, to the accompaniment of salvos of artillery, fraternal embraces, and frenzied cheering. One was remarked that the Americans burned more powder in celebrating French liberty than was consumed in achieving it.

GENÊT'S INDISCRETION

The streets of the Quaker City throbbed with fanatical crowds as Genêt was welcomed to the nation's capital. At a banquet (84 a plate) the impetuous diplomat thrilled the diners by singing a French fighting song. Throughout the city wild toasts were drunk to the guillotine, and showers of fiery poems descended upon the youthful minister. As one contemporary later exclaimed:

Can it ever be forgotten, what a racket was made with the citizen Genêt? The most enthusiastic homage was too cold to welcome his arrival; and his being the first minister

of the infant republic . . . was dwelt upon, as a most endearing circumstance. What hugging and tugging! What addressing and caressing! What mountebanking and chanting! with liberty-caps, and the other wretched trumpery of *sans culotte* foolery!³

The uproar over Genêt

Shortly before arriving in Philadelphia, Genêt learned of Washington's Neutrality Proclamation. He was profoundly shocked, though not completely disillusioned. His roaring reception had convinced him that the American public overwhelmingly favored intervention against England on the side of France, and he did not believe that the proclamation correctly represented the popular will. Many pro-French editors agreed with him.

The continued acclaim of the masses only strengthened Genêt in his conviction that President Washington was not faithfully interpreting the public will. Crowds of Francophiles damned the President for his coolness toward the French alliance, and accused him of seeking a crown and of trying to pass himself off as an honest man. Genêt admitted that one of these published attacks was the work of his own private secretary. Maddened Francophiles even went so far as to print woodcuts of George Washington being guillotined. In later years John Adams, Vice-President in 1793, reminisced to Thomas Jefferson:

"You certainly never felt the terrorism excited by Genêt, in 1793, when ten thousand people in the streets of Philadelphia, day after day, threatened to drag Washington out of his house, and effect a revolution in the government, or compel it to declare war in favor of the French revolution and against England."⁴

Adams went on to report the belief held in some quarters that nothing but the terrible epidemic of yellow fever, which broke out in Philadelphia at this time, "could have saved the United States from a fatal revolution of government."

In the midst of all this uproar, Washington remained cool and unperturbed, determined not to be swayed from sound policy by the clamor of a rabble aroused by foreign agents. The British poet of later years, Rudyard Kipling, is believed to have been moved to write his inspirational poem, "If," by the General's levelheadedness in this crisis.

THE UNDOING OF GENÊT

The fiery Frenchman continued to be the storm center of American politics from the time of his arrival in Philadelphia until his departure. He fitted out fourteen privateers, which swarmed from American ports and brought back, under the very nose of the national government, over eighty prizes, some of them taken within American waters.

These ventures appear to have been flagrant violations of American neutrality, but offenders were promptly freed by pro-French juries. Public opinion was stronger than law. The British minister lodged strongly worded protests against this unneutral activity, and Secretary Jefferson made the appropriate representations to Genêt. The latter indignantly accused the American Secretary of State of hunting up legalistic excuses "in the dusty tomes of Vattel and Grotius." "I thank God," the French emissary exulted, "I have forgot what these hired jurists have written."

The protests of Genêt became more shrill and his conduct more arrogant. Jefferson obtained from him what appeared to be a promise that a British vessel, *Little Sarah*, which the French had recently captured,

³ A. Graydon, *Memoirs of a Life Chiefly Passed in Pennsylvania* (Harrisburg, 1811), p. 335.

⁴ C. F. Adams, ed., *Works of John Adams* (Boston, 1856), X, 47.

would not be sent to sea as a privateer. Yet a few hours later she slipped down the Delaware River to begin a career of destruction. Washington and Jefferson were both furious. Such defiance of the government was even turning pro-French enthusiasts against the French minister. Jefferson, who perceived that Genêt was proving to be a Jonah, wrote to Madison in alarm, "he will sink the Republican interest if they do not abandon him."

Genêt finally overreached himself. In a moment of fuming anger he threatened to appeal over the head of the cold and unresponsive government to the sovereign masses. President Washington, oppressed by the heat of fetid, disease-ridden Philadelphia, exploded:

Is the minister of the French Republic to set the acts of this government at defiance with impunity? And then threaten the executive with an appeal to the people? What must the world think of such conduct, and of the government of the United States in submitting to it?⁵

Excited throngs of Francophiles might vilify Washington, but when the issue was squarely drawn between him and a foreign diplomat, sanity returned with a rush. The Federalists gleefully spread broadcast the news of Genêt's indiscretion, and their most caustic spokesman, William Cobbett, branded the Jeffersonian Republicans as "bastard offspring of Genêt, spawned in hell, to which they will presently return." Everywhere French sympathizers were hushed and shamed, except for a few who attempted to condone Genêt's offenses.

Washington's Cabinet met and unanimously agreed to demand the recall of Genêt. A new faction had come into power in France, and they were eager to cut off the diplomatic career as well as the head of the ill-starred envoy. But Washington, wisely declining to make a martyr of a fallen idol, refused to send the Frenchman home to an almost certain death. The discredited Genêt—Hamilton called him "a burned-out comet"—ultimately retired to New York, where hand in hand with the daughter of Governor Clinton, he faced the altar instead of the guillotine.

WASHINGTON'S FAREWELL TO THE NATION

A weary Washington was now prepared to bow out. He had planned to retire at the end of his first term, in 1793, but friends persuaded him that the critical state of foreign affairs demanded a continuance of his strong hand at the helm. Now, with the Jay and Pinckney Treaties negotiated, he felt that he could conscientiously lay down his burdens. He therefore prepared his famed Farewell Address with extreme care, and instead of presenting it as a public speech, gave it to one of his favorite newspapers as a special "scoop," on September 17, 1796.

Washington wrote his Farewell Address in collaboration with several of his intimate advisers, notably Hamilton, who contributed the incisive style. His immediate object was to announce that he would not be a candidate for a third term. But to this declaration he saw fit to add some sage advice, particularly regarding involvement in the broils and intrigues of Europe.

The memory of recent and current French intrigues was painfully fresh. Both Vergennes and Genêt, it will be recalled, had attempted to use the United States as a pawn in French schemes. The successor of Genêt, Joseph Fauchet, had sought by every means at his command to block the ratification of Jay's Treaty. His successor, Pierre Adet, through subsidies to the press and through Jeffersonian Republican societies, had aroused the people against the pact and had

⁵ W. C. Ford, ed., *Writings of George Washington* (New York, 1891), XII 302.

labored with the House of Representatives to defeat the necessary appropriation. Failing in this, he had attempted to bring about the defeat of Washington for re-election in 1796, and the elevation of the pro-French Thomas Jefferson to the Presidency—a scheme that was blocked by Washington's withdrawal. Following Washington's Farewell Address, Adet continued to labor unsuccessfully, through a public appeal and otherwise, for the defeat of the presumably pro-British John Adams, the Federalist candidate, and the election of the presumably pro-French Thomas Jefferson, the Republican candidate.

With such outrageous foreign intermeddling specifically in mind, Washington issued an earnest warning in his Farewell Address to the American people. He especially deplored the growth of a violent partisan spirit

that inflamed the people with fierce likes or dislikes for foreign countries.

Nothing is more essential than that permanent, inveterate antipathies against particular nations and passionate attachments for others should be excluded, and that in place of them just and amicable feelings toward all should be cultivated. The nation which indulges toward another an habitual hatred or an habitual fondness is in some degree a slave. . . . Against the insidious wiles of foreign influence (I conjure you to believe me, fellow-citizens) the jealousy of a free people ought to be constantly awake. . . .⁶ [Italics inserted]

Washington then turned to formal entanglements. With the disputes caused by the "forever" French alliance clearly in mind, he solemnly asserted: "It is our true policy

to steer clear of permanent alliances with any portion of the foreign world. . . . [But] we may safely trust to temporary alliances for extraordinary emergencies." [Italics inserted]⁷ Washington, in other words, was giving specific advice to a youthful and disunited nation in the year 1796—advice that had been dictated by recent and bitter experience. He was thinking of the existing permanent alliance with France, and probably had no intention of charting a specific course which the United States would have to follow for all time. He did not say—as he was later made to say—"No alliances, with any nation, at any time, for any purpose." The policy of noninvolvement—not isolation—that he recommended was not so much aloofness from the affairs of Europe as the exclusion of European agents and intrigue from the affairs of the United States.

HOUSE OF REPRESENTATIVES—Monday, September 29, 1969

The House met at 12 o'clock noon.

The Chaplain, Rev. Edward G. Latch, D.D., offered the following prayer:

The Lord bless thee and keep thee.—Numbers 6: 24.

We come to the altar of prayer, our Father, with grateful hearts as we remember the loving care with which Thou didst watch over our fathers as they founded and built our country. Time and again they found shelter under the shadow of Thy protecting love. Thou didst make of them bearers of Thy truth, champions of Thy law, and supporters of Thy kingdom. Give to us, their children, the courage and the strength to be true to our sacred trust.

In days of distress and in times of trouble fortify our spirits with a deep faith in Thee who never slumbers nor sleeps. Keep alive within us the great memories of the past, the good experiences of the present, and the grand visions of the future. May we always labor for that spiritual harvest when all Thy children shall be gathered under the banner of truth and love, and stand united in a common brotherhood.

In Thy holy name we pray. Amen.

THE JOURNAL

The Journal of the proceedings of Thursday, September 25, 1969, was read and approved.

MESSAGE FROM THE SENATE

A message from the Senate by Mr. Arrington, one of its clerks, announced that the Senate agrees to the amendments of the House to a bill of the Senate of the following title:

S. 574. An act to authorize the Secretary of the Interior to engage in feasibility investigations of certain water resource developments.

The message also announced that the Senate had passed with amendment in which the concurrence of the House is requested, a bill of the House of the following title:

H.R. 474. An act to establish a Commission on Government Procurement.

The message also announced that the Senate had passed bills of the following

titles, in which the concurrence of the House is requested:

S. 406. An act to amend the Federal Property and Administrative Services Act of 1949 to permit the rotation of certain property whenever its remaining storage or shelf life is too short to justify its retention, and for other purposes;

S. 740. An act to establish the Cabinet Committee on Opportunities for Spanish-Speaking People, and for other purposes; and

S. 2210. An act to amend the Federal Property and Administrative Services Act of 1949 so as to permit donations of surplus property to public museums.

EMERGING NATIONS MUST ALSO SHARE IN NEW IMF RESERVES

(Mr. HANNA asked and was given permission to address the House for 1 minute and to revise and extend his remarks.)

Mr. HANNA. Mr. Speaker, today starts a week in which this great Capital will play host to the representatives of the many nations of the world who are members of the International Monetary Fund. As one of the principal matters on the agenda, they will be formalizing what has already come to be a generally accepted proposition that the International Monetary Fund will include in the future the creation of the reserves of members in special drawing rights which will multiply the effectiveness of the gold supply of the world, and undergird the trade of the world.

Mr. Speaker, I think this is a very singular accomplishment, but there is something that is missing. In the arrangements that have been agreed upon the nations who will be benefited most are the 10 strongest and richest nations of the world.

Where I think we have an opportunity here is in the suggestion that was made by the gentleman from Wisconsin (Mr. REVUSS) in saying that the rich nations should make available through some mechanism in the World Bank such as IDA or through the soft windows of the regional banks, some of the new reserves that they will be creating for the smaller nations; the emerging nations of the world.

⁶ J. D. Richardson, ed., *Messages and Papers of the Presidents* (Washington, 1896), I, 221, 222.

It seems to me, Mr. Speaker, that just as we have found in America that the trickle-down theory did not operate to improve the economic strength of our Nation, it is equally true that a trickle-down theory between nations is not going to work. We should put together some of the solid benefits from the almost 70 percent of new reserves that we are going to get for practically nothing out of this new system, and make it operative for the underdeveloped nations where the great new market potential of the world really lies.

Mr. Speaker, I would hope to see that some of this kind of dialog is included in the IMF meetings which will be going on in this city this week.

Mr. Speaker, I yield back the balance of my time.

HONOR, RECORDS, AND LIVES OF SIX GREEN BERETS BEING SACRIFICED

(Mr. WAGGONER asked and was given permission to address the House for 1 minute and to revise and extend his remarks.)

Mr. WAGGONER. Mr. Speaker, in a cruel, compassionless demonstration of self-serving, the Army, the CIA, and unknown other agencies and individuals in the Government are preparing to sacrifice the honor, the exemplary records, and perhaps even the lives of six members of the Green Berets for the alleged slaying of a Vietnamese triple spy. If this trial proceeds, it will be the most outlandish miscarriage of justice perpetrated deliberately by Government agencies and individuals ever to come to public attention.

The victim in this travesty is not the Vietnamese triple agent, but six American servicemen who have proudly worn the uniform of the military and faithfully served the flag of the United States. The other principal victim will be the United States itself, if our Government is paraded before the world as a murderer of civilians.

There are those at home and abroad, in Government and out, who will go to any length to embarrass this country in any connection with the war in Vietnam.

⁷ *Ibid.*, I, 223.