SENATE—*Wednesday, September 29, 1971*

The Senate met at 10 a.m. and was called to order by Hon. ERNEST F. HOLLINGS, a Senator from the State of South Carolina.

PRAYER

The Chaplain, the Reverend Edward L. R. Elson, D.D., offered the following prayer:

Almighty God, King of Kings and Lord of Lords, from whom all power and rulership proceeds, we beseech Thee to look with favor upon all who serve in the Government of the United States. Imbue them with the spirit of wisdom, goodness, and truth; and so rule their hearts and bless their endeavors that law and order, justice and peace may everywhere prevail. Preserve us from public calamities, from physical dangers and moral pollution; and especially wilt Thou forgive all our national sins and failures.

Help us, O Lord, to maintain an honorable place among the nations. Make us strong and great in the fear of God and the love of righteousness, so that having been blessed, we may become a blessing to all nations, to the glory of Thy name.

Through Jesus Christ. Amen.

DESIGNATION OF THE ACTING PRESIDENT PRO TEMPORE

The PRESIDING OFFICER. The clerk will please read a communication to the Senate from the President pro tempore (Mr. ELLENDER).

The assistant legislative clerk read the following letter:

U.S. SENATE,
PRESIDENT PRO TEMPORE,
Washington, D.C., September 29, 1971.

To the Senate:

Being temporarily absent from the Senate on official duties, I appoint Hon. ERNEST F. HOLLINGS, a Senator from the State of South Carolina, to perform the duties of the Chair during my absence.

ALLEN J. ELLENDER,
President pro tempore.

Mr. HOLLINGS thereupon took the chair as Acting President pro tempore.

MESSAGE FROM THE HOUSE

A message from the House of Representatives, by Mr. Berry, one of its reading clerks, announced that the House had passed, without amendment, the bill (S. 1253) to amend section 6 of title 35, United States Code, "Patents," to authorize domestic and international studies and programs relating to patents and trademarks.

The message also announced that the House had agreed to the concurrent resolution (S. Con. Res. 42) providing for a deletion in the enrollment of H.R. 4713.

The message further announced that the House had passed the bill (S. 2495) to amend the District of Columbia Election Act, and for other purposes, with an amendment, in which it requested the concurrence of the Senate.

The message also announced that the House had passed a bill (H.R. 6893) to provide for the reporting of weather modification activities to the Federal Government, in which it requested the concurrence of the Senate.

HOUSE BILL REFERRED

The bill (H.R. 6893) to provide for the reporting of weather modification activities to the Federal Government was read twice by its title and referred to the Committee on Commerce.

THE JOURNAL

Mr. MANSFIELD. Mr. President, I ask unanimous consent that the reading of the Journal of the proceedings of Tuesday, September 28, 1971, be dispensed with.

The ACTING PRESIDENT pro tempore. Without objection, it is so ordered.

COMMITTEE MEETINGS DURING SENATE SESSION

Mr. MANSFIELD. Mr. President, I ask unanimous consent that all committees may be authorized to meet during the session of the Senate today.

The ACTING PRESIDENT pro tempore. Without objection, it is so ordered.

AMENDMENT OF LEGISLATIVE REORGANIZATON ACT OF 1946

Mr. MANSFIELD. Mr. President, I ask the Chair to lay before the Senate a message from the House of Representatives on H.R. 4713.

The ACTING PRESIDENT pro tempore laid before the Senate the message of the House of Representatives which was, that the House agree to the amendments of the Senate numbered 1, 2, 4, 5, 6, 7, 8, 9, and 10 to the bill (H.R. 4713) entitled "An Act to amend section 136 of the Legislative Reorganization Act of 1946 to correct an omission in existing law with respect to the entitlement of committees of the House of Representatives to the use of certain currencies."; that the House agree to the amendment of the Senate numbered 3 to the aforesaid bill with the following amendment:

"In subsection (b) of Senate amendment numbered (3) on page 5 of the Senate engrossed amendments insert: *or by the Clerk of the House* immediately after "by the Secretary of the Senate".

And that the House agree to the amendment of the Senate to the title of the aforesaid bill.

Mr. SCOTT. Mr. President, I take this time merely to say that I understand this has been cleared with the Senators who are interested on our side, and I have no objection.

Mr. MANSFIELD. Mr. President, I move that the Senate concur in the amendment of the House.

The motion was agreed to.

Mr. MANSFIELD. Mr. President, I move that the vote by which the amendment was agreed to be reconsidered.

Mr. SCOTT. Mr. President, I move to lay that motion on the table.

The motion to lay on the table was agreed to.

EXECUTIVE SESSION

Mr. MANSFIELD. Mr. President, I ask unanimous consent that the Senate go into executive session to consider nominations on the Executive Calendar, beginning with new reports.

There being no objection, the Senate proceeded to the consideration of executive business.

The ACTING PRESIDENT pro tempore. The nominations on the Executive Calendar will be stated.

AMBASSADORS

The second assistant legislative clerk proceeded to read sundry nominations of ambassadors.

Mr. MANSFIELD. Mr. President, I ask unanimous consent that the nominations be considered en bloc.

The ACTING PRESIDENT pro tempore. Without objection, the nominations are considered and confirmed en bloc.

AGENCY FOR INTERNATIONAL DEVELOPMENT

The second assistant legislative clerk read the nomination of Herman Kleine, of Maryland, to be an Assistant Administrator of the Agency for International Development.

The ACTING PRESIDENT pro tempore. Without objection, the nomination is considered and confirmed.

U.S. ADVISORY COMMISSION ON INTERNATIONAL EDUCATIONAL AND CULTURAL AFFAIRS

The second assistant legislative clerk proceeded to read sundry nominations in the U.S. Advisory Commission on International Educational and Cultural Affairs.

Mr. MANSFIELD. Mr. President, I ask unanimous consent that the nominations be considered en bloc.

The ACTING PRESIDENT pro tempore. Without objection, the nominations are considered and confirmed en bloc.

Mr. MANSFIELD. Mr. President, I ask unanimous consent that the President be immediately notified of these nominations.

The ACTING PRESIDENT pro tempore. Without objection, it is so ordered.

LEGISLATIVE SESSION

Mr. MANSFIELD. Mr. President, I move that the Senate resume the consideration of legislative business.

AUTHENTICATED U.S. GOVERNMENT INFORMATION GPO

The motion was agreed to, and the Senate resumed the consideration of legislative business.

ORDER OF BUSINESS

The ACTING PRESIDENT pro tempore. Does the Senator from Pennsylvania (Mr. SCOTT) desire to be heard?

Mr. SCOTT. Mr. President, I yield back my time.

ORDER OF BUSINESS

The ACTING PRESIDENT pro tempore. Under the previous order, the distinguished Senator from California (Mr. CRANSTON) is now recognized for not to exceed 15 minutes.

CHANGE IN ORDER OF RECOGNITION OF SENATORS

Mr. BYRD of West Virginia. Mr. President, if the Senator from California will yield briefly for a unanimous-consent request, I ask unanimous consent that the respective positions of the distinguished Senators from Minnesota (Mr. MONDALE) and Virginia (Mr. BYRD) in connection with the orders for recognition today, as they were requested yesterday, be reversed, so that the Senator from Minnesota (Mr. MONDALE) will be recognized preceding the Senator from Virginia (Mr. BYRD).

The ACTING PRESIDENT pro tempore. Without objection, it is so ordered.

RULE XXII

Mr. CRANSTON. Mr. President, when I first came to the Senate, I voted with fellow Senators who tried, unsuccessfully, to change rule XXII so that only three-fifths of the number of Senators present and voting could limit debate instead of the two-thirds still required for cloture.

In the nearly 3 years that have passed since that vote, I have gained a deeper understanding of the value of unlimited debate and a pragmatic appreciation of the importance of retaining the two-thirds rule under contemporary circumstances.

I shall vote to keep rule XXII unchanged if the question comes up again when the new Congress convenes in January 1973.

A number of factors have contributed to my new thinking: The institution of the two-track system, which makes it possible for Senators to conduct unlimited debate on an issue without holding up the work of the Senate on other matters; the ease with which the two-thirds vote—once thought to be so difficult to attain—has been attained in recent months, and the flexibility of some Senators who were once thought to be inflexible on the principle of cloture.

Just 4 months ago there were 12 veteran Senators who had never voted for cloture through an aggregate total of more than 200 years service in this body. Today there are only three.

But the event that triggered my decision to announce at this time that I shall oppose making it easier to invoke cloture occurred a week ago yesterday when, by the margin of a single vote, we were denied an opportunity to continue a debate that could have delayed extension of the draft act at least until the administration accepted the Mansfield amendment. On the very first try, two-thirds cloture was clamped on two of the most critical issues confronting our Nation today.

My disappointment turned to dismay when I discovered that among those voting for cloture were Senators who strongly opposed the draft and others, who strongly supported the Mansfield amendment to end our military involvement in Vietnam.

Despite their deep convictions on one or both of these issues, they opted to shut off debate—and to force a vote which they knew would continue the draft and kill the Mansfield amendment—simply because they did not like filibusters, or thought we had talked long enough.

I think it is time some of us take a new look at what we are doing. When our dislike for filibusters becomes more important to us than our distrust of the draft or our revulsion with Vietnam, then we ought to take another look at the filibuster, and its legitimate use.

I do not consider the filibuster horrendous; I think the draft and Vietnam are far worse. I look upon the filibuster as a means, not an end. When it can be used to good purpose, I support it and I shall use it as long as the rules of the Senate permit it. When it is used against ends that I favor, I shall oppose it. But it is the ends—the issues—that will determine what I will do, not my biases for or against the filibuster.

There were others that Tuesday who also took that same pragmatic approach. Among them, and joining the anitfilibuster Senators, were men who favor the draft and oppose the Mansfield amendment. Some of them had never voted for cloture before; they did this time. They were practical men, using the legitimate legislative tools at their disposal to achieve the goals that they desired.

Some of us might take a lesson from these men. We should not permit our traditional — and perhaps anachronistic—opposition to the filibuster to cloud our judgment when we are asked to vote on crucial national issues. I believe we should vote the way we feel about those issues, not the way we feel about cloture or about limited and unlimited debate.

The issue of cloture is a dead issue except once every 2 years, at most. The time for Senators to vote their views of cloture is when the question of cloture is relevant; that is, when a proposal to change rule XXII is before the Senate at the beginning of a new Congress. From then on, it seems to me, Senators should vote on the substance of the matter before the Senate and the country.

And if a cloture vote is before the Senate, I think Senators should vote for or against cloture depending on whether they are for or against the bill being debated and whether they believe desirable objectives might be attained if debate is allowed to continue. We should not vote for cloture automatically as though it were only a procedural matter. More important things may often be at stake.

A number of other Senators also are rethinking their position on cloture in the light of recent developments. I have asked them and others to join with me today in a public discussion—a Senate seminar, if you will—of this basic question.

I have suggested that we hold this discussion now, rather than a year or 16 months from now, because we in the Senate and people throughout the Nation need time to think this thing through. Many of us may have held views for a long, long time which may now need revision. Sometimes that does not come easy. I hope the questions we raise here today will be picked up and explored further in schools and political clubs and discussion groups throughout the Nation in the months to come.

In the meantime, many more vital matters will be coming before the Senate which may confront the membership with the same sort of choice they faced on September 21—whether to base their vote pragmatically and practically on the issue at hand or whether to cast a philosophical vote against the filibuster even at the expense of losing a substantive issue in which they deeply believe.

I hope our discussion today will persuade them to vote according to their convictions and not according to procedural concepts born in the days of the great civil rights struggles.

The filibuster, which has been opposed by many legislators during the past four decades, may turn out to be a most useful tool for a more effective Congress in the coming years. During the 1930's, the 1940's, the 1950's, and most of the 1960's, the filibuster was mainly used to block civil rights legislation. But both before that time and since, the filibuster has served useful social purposes.

As early as 1841 Senate liberals engaged in extended debate for 14 days in an effort to abolish the Bank of the United States, an institution which heavily benefited the wealthy. In 1863 the Senate filibustered a bill to suspend the writ of habeas corpus. In 1879 a 4-day filibuster halted repeal of Reconstruction election laws designed to insure enfranchisement of southern blacks.

A ship subsidy bill introduced in 1907 was filibustered by Senators who felt it would benefit only a limited number of wealthy interests. In 1908, Senator La-Follette, always a champion of progressive causes, led a 28-day filibuster against the Vreeland-Aldrich emergency currency law which shored up securities to the benefit of big business. A successful filibuster by Senator Owen in 1911 led to the admission of the State of Arizona over conservative objections to the initiative, referendum, and recall provisions of its constitution. Another filibuster in 1919 was successful in defeating an oil and mineral leasing bill which would have unfairly favored the oil industry. Once again, in 1925, Senators filibustered an-

other proindustry bill, President Harding's ship subsidy proposal.

During all those years, the filibuster was used by both conservatives and liberals and by coalitions of legislators for regional or cross-factional purposes to which no easy label can be attached. For instance, the Silver Purchase Act of 1893 to repeal the unlimited coinage of silver was filibustered by Senators from both the West and the South—the West because they mined the silver, the South because they favored cheaper money. And isolationists drawn from among liberals and conseratives, Democrats, and Republicans defeated President Wilson's proposal to arm merchant ships—a defeat which, incidentally, led to the adoption of rule XXII.

We are all too familiar with the experience of more recent years when the filibuster earned its present reputation as an agent for blocking civil rights legislation. But change began in the 1960's. There was a filibuster against the Comsat bill in 1962 and another against the reapportionment of State legislatures in 1964. Beginning with the lengthy debate over the ABM in 1969, a debate that was almost but not quite a filibuster, the procedure has since been used almost exclusively either in support of progressive measures or against legislation which was not in the best interests of the American people.

These past several decades have also seen a revolutionary and menacing increase in executive power in nations throughout the world. The wide currency of the word "dictatorship" in modern times is frightful evidence of that fact.

There is no dictatorship in the United States. President Nixon is not a dictator. Nor was President Johnson. Or Jack Kennedy, or Ike, or Harry Truman, or FDR.

Still, no one will deny that there has been a rapid and accelerating concentration of executive power in this country since at least the early 1930's. That concentration continues unabated. It constitutes a compelling danger in an age of computers, wiretaps, and nuclear missiles.

Power concentrated in a single man—or in a single branch of government—is potential inimical to freedom. Especially when that man possesses the powers and the prestige of Commander in Chief.

In critical areas of foreign policy—particularly in matters relating to the launching of wars, the conduct of wars, and the terms to be set for the ending of wars—this Nation is trending perilously close to becoming a constitutional dictatorship.

Meanwhile the Congress, which some of our Founding Fathers feared would be the strongest branch of Government, has instead become the weakest—deferring time after time to the superior knowledge and even the superior responsibility which the executive department claims for itself. The courts, to their credit—and to the Nation's salvation—have not been as deferential to the presidential will as have we.

In an understandable but exaggerated effort to strengthen the President's hand in foreign policy and national security, the Congress has given the executive department an iron fist that threatens not only foreign enemies but conceivably the liberties of the American people.

Congress has the power, whenever it chooses to use it, to slow and perhaps block altogether, precipitous, unwise or unconstitutional action by an all-powerful President. It also can arouse the American people to the danger—perhaps the surest deterrent to tyranny that the Congress possesses.

Freedom of speech is the touchstone of liberty. In the Senate, unlimited freedom of speech is democracy's ultimate weapon.

Through unlimited debate, the Senate can delay government action where delay is the better part of wisdom. The people want, and should have, an activist government. But all too clearly, not everything the Federal Government does is wise, nor is it always done well or at the best time. Our times demand that we in government act decisively, but not hastily; forcefully, but not imprudently.

Governmental delay can be healthy. So can governmental inaction. There are things the Federal Government has done that it should never have done at all. And many of us are still suffering as a result. The best thing one can do about a bad law is to defeat it. The next best thing is to try to keep it from coming to a vote if it looks like it is going to be passed and it involves a basic issue of major import to the Nation.

Delay and inaction need not be signs that the system is failing. They could be signs that the system is working the very way the Founding Fathers intended it to work.

Unlimited Senate debate can be a tool for moderation; it can force compromise in instances where one side or another is so powerful that it feels it need not make any concessions, no matter how reasonable the concessions that are sought may be.

Unlimited Senate debate can be a unique instrument of public—and congressional—enlightenment. The Congress is the only branch of the Federal Government that opens much of its decisionmaking processes to the public. The executive department conducts too many of its arguments in private, privileged sessions and then announces only the final result—with no hint, if it can possibly help it, that a difference of opinion had ever existed. Justices thrash out and try to reconcile their differences in closed chambers. And though they subsequently make public their dissenting views as well as majority opinions, the public is never allowed to participate in a Supreme Court debate and influence the Justices' final decision while the critical decisionmaking process is still going on.

Not so with the Senate. Once committees and conferences have acted, our debates, our arguments, our differences are right out in the open. The public can participate in and influence our decisionmaking process. But the extent to which they can do so effectively depends on how long our debates go on. The shorter the prevote debates, the less the opportunity for the public to influence that vote; the longer the debate, the greater the public influence.

As extended debate gives the public more opportunity to influence the Senate, so it gives the Senate a fair chance to inform the public and awaken its concern over issues it may be misinformed about, or not informed about at all. This process takes time, especially if it means counteracting one of those massive public relations jobs by the White House or the Pentagon. And doubly so if it means counterbalancing the executive department backed by other segments of massive, concentrated power in our society.

Unlimited debate in the Senate can help work the will of the majority. The will of the majority of the people, that is. Because of the distinctive makeup of the Senate—with representation determined by State rather than population—a view held by a majority of the people in the Senate at any given time and on any given issue may not represent the view of the majority of the people of the country. I think that clearly is the case with the Vietnam war and the draft. I think that closing debate on the draft extension along with the Mansfield amendment on Vietnam thwarted the wishes of the majority of Americans.

Nonetheless, the value of unlimited debate that surely transcends all other benefits is the protection that it affords minority rights. And protecting minority rights is where the action is, democratically speaking. Some people mistakenly think that democracy simply means the will of the majority. But that is only part of the story. The majority of the Russian people, for example, probably support their government. Does that make the Soviet Union a democracy? Not in my book, nor in any American's book.

Democracy to me and to most Americans means majority rule plus constitutional limits on governmental powers and guaranteed protection of minority and individual rights. Those are the things you do not get in Russia. Imagine somebody trying a filibuster in the Soviet Presidium.

But none of this is to be taken to mean that I oppose any limit whatever on debate. Some issues involving basic democratic principles should be filibustered forever if that proves to be the only way to prevent an unconstitutional invasion of our liberties. But such knockdown, drag-out fights occur only rarely if ever in America.

Other issues may need to be debated at great length, until an acceptable compromise can be forced. But I will not hesitate to vote cloture to limit debate if I believe that will serve the best interests of the Nation.

The two-thirds rule has substantial constitutional precedence, but it is neither sacred nor immutable. I would never vote to change rule XXII to permit a simple Senate majority to shut off debate and deprive a minority of its rights to free speech. But should the time come when there is a better balance of powers between the executive and legislative branches of government and less concentration of powers in a few hands in

our society generally, I would once again be willing to reconsider my position and, in the interest of speeding up the business of government inside and outside the Senate, vote to make it easier to obtain cloture. Say, by a three-fifths vote.

But that time is not now.

Mr. SCOTT. Mr. President, will the distinguished Senator yield?

Mr. CRANSTON. I am delighted to yield to the distinguished Senator from Pennsylvania.

Mr. SCOTT. The disinguished Senator from California has made a very interesting contribution to the thinking on this subject.

I do grieve at the somewhat sad and woeful conditions involved in shooing the ancient dogma into the doghouse. I do not know how many share my views, but in a way I have been able in a unique way to be critical about liberals and conservatives over the years.

I would suggest with respect to the guiding principle of getting on with the Senate business—which, of course, is a big problem for the distinguished majority leader and me—that I will continue to adhere to the recommendation of such reforms as would expedite the Senate business with a due and careful and continuing regard for the rights of each individual Senator.

I do not think that changes in rule XXII are to be viewed in the light of whose ox is gored, whether conservatives or Southern Democrats on civil rights issues or the liberals on an issue which they conceive not to have been fully stretched to its outermost limits until the fabric of the Senate itself seems to be worn through so that one can see daylight through it. I will continue to advocate such legislation as appears wise to me from time to time.

I congratulate the Senator from California, however, because he has given further light on an interesting subject, namely that sometimes rules which seem to operate for the advantage of one group of people in the Senate actually operate for the advantage of another. In doing so he has extended our understanding of the matter. I thank the Senator for it.

Mr. CRANSTON. Mr. President, I thank the Senator very much for his thoughtful remarks. I am grateful to him for participating in this discussion.

Mr. President, I would like to respond by saying first, with respect to whether we should always put the label on dogmas of liberal or conservative, that I, like the Senator from Pennsylvania, seeking to examine principles and procedures, sometimes liberal and sometimes conservative, so-called.

Under the leadership of the Senator from Pennsylvania and the Senator from Montana the Senator has found it possible to continue an extended discussion on another system, or the two-track system. The Senate has found it easy to invoke cloture on the Senate if that happened to be the will of two-thirds of those present and voting.

I believe that sometimes the will of the Senate is best served by not acting rather than by acting and thus protecting the interests of the minorities, particularly in these times when so much power is in the hands of some in our society. That has caused me to do much thinking on this matter.

There is also one other point that I hope we can get across in these discussions. If people want to change XXII and vote on whether a filibuster or an unlimited debate is popular or unpopular, the time to do that is in the opening days of a new session of the Congress.

I hope that Senators will be guided by the issue in their votes when rule XXII is before the Senate.

I would be willing at the proper time to support a change in rule XXII to a majority of three-fifths, but not to a simple majority.

Mr. SCOTT. Mr. President, I do thank the Senator from California as well as the centrists of the Senate. I do want to make clear that I am equally in accord with the liberal dogma or the conservative catalysts.

I thank the Senator.

Mr. CRANSTON. Mr. President, I thank the Senator from Pennsylvania.

The ACTING PRESIDENT pro tempore. At this time the Senator from Idaho is recognized for 15 minutes.

Mr. CHURCH. Mr. President, the purpose of this colloquy is to revisit rule XXII. One cannot return to an old argument without risking the embarrassment of having to "eat his own words."

It is said of Winston Churchill that he was once asked if it were true that he often had to eat his own words.

"Very often," replied Churchill. "And, on the whole, I have found them a rather wholesome diet."

Such is the risk entailed in reconsidering the part rule XXII is currently playing in the life of the Senate.

But first one must consider the role the Senate itself is playing in the political life of the Nation. If these are times, as I believe them to be, when changes in our public spending habits are called for, there is little evidence that the Senate will initiate those changes. If the Federal budget needs to be drastically reshaped, the record suggests that the Senate is more likely to resist, than to expedite the alterations.

This tendency to maintain the established order arises not so much from old voting habits as from the way the Senate itself is structured. Under our committee system, each executive department of the Government finds its champion in the committee which exercises legislative jurisdiction over its affairs. The Armed Forces Committee becomes the protector of the Pentagon, the Committee on Agriculture becomes the defender of existing farm programs, the Foreign Relations Committee becomes the guarantor for perpetuating foreign aid. In this manner, Congress tends to institutionalize the status quo.

I sometimes think the Senate resembles a fudge factory, where we shape each piece, slicing a little here, adding a little there, but where the recipe never changes and the candy stays the same. Whenever the big interests line up together, by which I mean big government, big business, and big labor, they seem always able to command a majority, no matter how unprincipled or outrageous their legislative proposal might be.

The ACTING PRESIDENT pro tempore. The time of the Senator from California has expired. The Senator from Idaho is now speaking on the time of the Senator from Maryland. The Senator from Maryland is recognized.

Mr. CHURCH. Mr. President, will the Senator from Maryland yield to me such time as is necessary for me to complete my statement. It should not take more than another 3 minutes.

Mr. MATHIAS. I am happy to yield to the Senator from Idaho.

The ACTING PRESIDENT pro tempore. The Senator from Idaho is recognized.

Mr. CHURCH. But occasionally, if the public interest is being too badly mauled, a determined minority in the Senate, by resort to rule XXII, can engage in a delaying action that often will force concessions and sometimes will even result in the rejection of the measure contested.

During this session, I have watched it happen on three important legislative measures:

First. The supersonic commercial air transport, the SST. Opponents of this boondoggle employed rule XXII to buy vitally needed time—successfully as it turned out—to mobilize public opinion against the SST. The project was finally shelved, though it would clearly have been approved, had it been rushed to passage.

Second. The Lockheed Aircraft loan guarantee. This proposal was reported to the Senate in the form of a Big Business Relief Act. Any insolvent business, however badly mismanaged, if big enough, could obtain Government credit and thus avoid bankruptcy. It was a kind of socialism-for-the-rich, free-enterprise-for-the-poor program. Again, a resort to rule XXII forced a compromise. Lockheed got its guaranteed loan, but the right to raid the treasury was not extended to big business generally.

Third. The draft extension. In respect to this bill, rule XXII proved least effective. Cloture was imposed twice, once in June and again this month. But an access to extended debate enabled opponents of the draft to delay its renewal for several months. And the effort to resist the second cloture attempt failed by only one vote.

On theory alone, a logical and compelling case can be made for amending rule XXII. I could repeat the arguments I myself have made in the past urging modification of the rule. But, the rules of the Senate, like the law itself, may have less to do with rationality than with experience. And the experience of these past 18 months states a strong case for the retention of rule XXII in its present form.

I do not derogate the arguments made in favor of changing rule XXII. I, myself, made them, believed them, and urged their acceptance. But as a sitting judge once remarked to a lawyer pleading before him:

> I remind you, Counselor, that we are confronted with a *condition*—not a theory.

Mr. President, I thank the Senator very much for yielding to me part of his time.

Mr. MATHIAS. Mr. President, responding to the suggestion of the dis-

tinguished Senator from California that rule XXII is a proper subject for some open discussion in the Senate and some open discussion in the country, I am reminded a little bit of a story told to me some years ago by a Member of the other body, Governor Tuck of Virginia. Governor Tuck lived in the town of South Boston, Va., where he said a great many of the people were Baptists, and before they would have a baptismal ceremony by a river in that locality they would send out the young men and the older boys to put sticks in the river so that the little ones would not get out over their heads. Governor Tuck used to say that was the process of measuring the water.

Mr. President, I think that is very properly what we are doing here today. We are measuring the water.

The very first vote I cast as a Member of Congress was a vote to enlarge the Rules Committee in the other body, one of those painful experiences which membership in Congress involves; very painful. But I think that vote, which I recall today, is not without some interest with respect to rule XXII, because it illustrates the fact that institutions within Congress, as well as Congress, change in relationship to the times and circumstances.

When Speaker Cannon, who was known as Czar Cannon, was in his heyday in the House, he ruled it with an iron hand. It was a great liberal thing, a great progressive reform to set up the Rules Committee as an alternative to the iron rule of the Speaker. Yet we find over a period of 50 or 60 years the Rules Committee had become known as the citadel of reaction; that it was necessary to reform the Rules Committee by enlarging it and weakening the power of its chairman. Instead of being the great instrument of reform, as originally conceived, it had become an obstacle to a reasonable rate of legislative progress.

I think that is the kind of situation we deal with here. There is an ebb and flow in legislative institutions; there is an ebb and flow in the effectiveness of the rules by which we govern ourselves. I think the existence of this ebb and flow gives great weight and force to the words just spoken here by the minority leader, the distinguished Senator from Pennsylvania, who abjured both liberal dogma and conservative catalysts, if I remember his words exactly. I think that is right.

I do not think this is a question for dogma. I do not think this is a question for rigid consistency. It is a question of commonsense. There are some very fundamental principles at stake here.

If this Republic, as founded, had depended entirely on majoritarian rule, there would not be any purpose in measuring the water this morning—if a simple majority always ruled. But it is a part of the organic law of this Nation that a simple majority is not always sufficient to carry the day. There are occasions when more than a majority is required.

Amendment of the Constitution, for example, requires more than a simple majority of the American people or of the States. The overriding of a veto by the President requires more than a simple majority.

So that this Republic is not founded purely and simply on the concept that a majority alone will rule, and the reason for that is a sound reason, because in this Nation above all other nations the rights of individuals are guaranteed and protected—protected against the Government as well as against the intrusions upon their rights by other private citizens. The rights of minorities are protected against the tyrannies of majorities.

This is, of course, the original rationale for rule XXII. We find, however, that rule XXII has, on the occasions in which it has been used since 1841—some 60 occasions—impeded the orderly conduct of the business of the Senate, sometimes for high purposes and worthy motives, and sometimes perhaps for less high purposes and less worthy motives. So we have a conflict—a conflict between the concept of rule XXII as one of the protections of minorities and rule XXII as an obstacle to the logical and reasonable flow of Senate business.

I think it is useful to consider the way that the rule has worked. The records indicate that at least 63 important pieces of legislation have been delayed or defeated by filibusters in the past. Between 1876 and 1916 at least 82 appropriation bills failed of passage by the direct or indirect result of filibusters. And since 1960, which is perhaps the period that ought to be of greatest pertinence to our discussion, the measures that were either defeated or delayed by filibusters include civil rights bills, voting rights bills, COMSAT, home rule for the District of Columbia, right to work, the reapportionment amendment, campaign funds financing, open housing legislation, the confirmation of Messrs. Fortas, Haynesworth, and Carswell, the Cooper-Church amendment, the abolition of the electoral college, the family assistance plan, the shoe and textile import quotas, and the financing for the SST.

I think that this list, in which the impact of rule XXII has been felt, is sufficiently impressive a list of events and issues in our own time that we can see that we are dealing here with a very volatile and explosive subject.

We were fixed so long in our concept of the filibuster as, you might call it, almost a regional weapon that I think the American people associate the filibuster and rule XXII with the old-fashioned Member of the Senate who is rotund, wears a black suit and a black hat and a black string tie, and pince-nez glasses on a black ribbon. But obviously that is not an adequate description any more. The rule is being employed by Members from all of the States, or from a wide variety of States, at any rate. Its application is far broader than previous experience would indicate. It is being utilized to prevent hasty action. It is being utilized to protect the interests of minorities, whether here in the Senate or in the country. And I think you have to consider very carefully what the impact of altering the rule would be and what the impact of abolition of the rule would be.

In a large measure, this is not a housekeeping problem for the Senate. In a large measure, this is going to affect what the Senate does with the Nation's business. What can be useful about the suggestion of the Senator from California is that we discuss it openly so that we may focus public attention on the question. As we focus public attention on it I hope we will stimulate discussion and debate so that we can consider not only this rule and how it affects the conduct of business in the Senate, but will consider the principle which underlies this rule. This principle built into our Government does not always follow the majoritarian principle, which reflects the fact that this is a government dedicated to guaranteeing the rights of individuals, and that as this philosophy is considered and discussed and debated, there will feed back to us here in the Senate from across the country the feeling and the sentiment and the contemporary judgment of the American people on the way that this question should be resolved when the new Congress meets in January of 1973.

Mr. CHURCH. Mr. President, the distinguished junior Senator from Georgia has indicated his intent to participate in this discussion, and I am happy to yield to him such time as he may require.

Mr. GAMBRELL. Mr. President, on this question of rule XXII, I would simply like to state that I believe it is an important development that these distinguished Senators have brought before the Senate for further consideration the importance of rule XXII in our system.

Senators will recall that my arrival here was about a month later than the convening of Congress, by virtue of my having been appointed to succeed the late Senator Russell, who was one of the great defenders and advocates of rule XXII.

At the time I arrived here, the question before the Senate was the proposed amendment of rule XXII; and by application of rule XXII and the extension of debate thereunder, rule XXII eventually survived unchanged. I think it was important that it did survive, and I voted against cloture, I think four times, in order to avoid the amendment of rule XXII.

The distinguished Senator from Maryland listed 10 or 15, or maybe more, important issues which, over a period of years, had been delayed and had been subjected to extended debate under rule XXII. The distinguished Senator from Idaho mentioned several issues which have been debated during this session of the Senate and this Congress. But it was interesting that neither of them mentioned that rule XXII itself had been the subject of extended debate, and that it in fact had survived as a result of that extended debate.

I think it is important, in considering this matter, that we look, not to see whose point of view prevailed or whose point of view was defeated as a result of the extended debate, but to the fact that there was a debate, and the fact that there was discussion and there was public attention focused and concern brought to bear, and in some cases a compromise or amelioration of views.

I might say further that I think a

subject which is deserving of some discussion and debate, and which will no doubt be brought on for some extended debate during this session of Congress, is the question of enforced busing of schoolchildren throughout the country. As that issue is brought more and more into focus by various court decisions and administrative rulings, not only throughout the South but in many parts of the country, I think there will be growing recognition of the need for widespread and extended consideration of the desirability and advisability of that policy and that practice.

I have here, and will seek recognition to ask unanimous consent during the morning hour to have printed in the RECORD, a letter and an enclosed resolution from the State school superintendent in Georgia on this subject, and as I have stated, at an appropriate time in the future in this session there will be an opportunity for some further discussion of this very important and critical issue.

I thank the Senator from Idaho for yielding me his time.

Mr. LONG. Mr. President, will the Senator yield?

Mr. GAMBRELL. I believe this is on the time of the Senator from Idaho.

Mr. CHURCH. I yield.

Mr. LONG. It seems to me that the best argument against changing rule XXII is that it never really has been given a trial. The reason I say that is because there are some of my southern colleagues—and I say this with all deference and all admiration and love of them—who have refused to vote for cloture, no matter what the circumstances, on the theory that it was wrong to shut off debate, ever.

It seems to me that the Senate and every Member of it must recognize that there is such a thing as rule XXII, which does permit the shutting off of debate by a two-thirds majority, and give the thing a fair trial. But so far it would appear to me that when a case can be made for closing off debate, we are able to shut off debate, and that is really about all one has a right to expect and to ask of any rule on debate limitation.

Personally, I feel that as much as people are entitled to be heard, the time comes when it is within the power of two-thirds of the Senate to shut off debate. In view of the fact that I must recognize that those who might differ with me have that weapon available, I, personally, claim it for myself.

Mr. GAMBRELL. I agree 100 percent with the remarks of the Senator, and I thank him for adding them.

Mr. CHURCH. Mr. President, I yield such time as remains to me to the distinguished Senator from Minnesota (Mr. MONDALE).

The ACTING PRESIDENT pro tempore. Under that agreement and under the previous unanimous-consent agreement, the Senator from Minnesota is recognized.

Mr. MONDALE. Mr. President, since coming to the Senate, I have viewed a change in rule XXII as one of the most crucial issues of congressional reform. Basically it has been my position, and continues to be, that rule XXII's provision that two-thirds of those present and voting are required to vote cloture permits paralysis of the legislative process. Thus, I have consistently supported past efforts to amend rule XXII. This is still my position, and I will continue to support efforts to change rule XXII.

When I first came to the Senate, I cosponsored a measure to close off debate with 51 percent of the vote of the Senate.

The longer I am here, the more I feel that this would be an unwise policy, and I will no longer support a rule which allows a simple majority to close off debate.

As I see it, it is an issue between the ability to paralyze, on the one hand, and the ability to require full ventilation of an issue, on the other. In my opinion, there are crucial issues which demand full consideration by the Senate—the kind of full consideration that no other institution in this country is capable of giving. Such consideration requires extended debate.

For example, the Senate spent approximately 6 weeks in 1969 debating the military authorization bill, and I believe that debate was the turning point toward a more efficient U.S. military policy. In contrast to this, the House debate on the same measure was limited to 4 hours, and that cannot be sufficient time to fully consider a measure of that magnitude, with all its profound underlying policy questions.

Increasingly, it seems to me, the Executive, under both political parties, has been pursuing a policy which often borders on deceit but which almost routinely borders on a very careful and sophisticated effort to suppress information.

The Pentagon papers certainly set forth very disturbing truths about the tragedy of our policies in Vietnam and in many ways sharply contradict the public impressions that were permitted to exist during the buildup of that tragic war. The effort to suppress the printing of the truth about our involvement in Vietnam contained in those documents brought about the first official effort in the history of the United States to invoke prepublication censorship—an effort by our Government to censor what the American people could learn about that issue. I am convinced that the Government was far more concerned about hiding the truth from the American people than they were about preventing the disclosure of secrets to the Russian people. They wanted to defend themselves from being embarrassed. That cannot be the proper role of this Government or any of us in this body.

The very foundation of a vital democracy involves full and candid disclosure. I say this because I do not know of any other body that is even remotely capable of prying the truth out of the Executive or any major business—or out of any other organization, for that matter—except the U.S. Senate. A primary way to do that is through extended debate, through the willingness of a band of Senators, who sense that the public has not been fully advised and informed, to stand up and debate an issue and to try to pursue strategies that force the disclosure of information.

One cannot pick up a newspaper on any day without seeing evidence of this policy. Once again, I say it is not a partisan issue. I think the Pentagon papers tell us something about the past administration.

Just this morning, the paper discloses that the administration is firing the highly professional leadership of the Bureau of Labor Statistics; and they are going to have a sort of political cleansing process by which a politically sensitive officer will tell the American people how good the economy really is.

Just a few months ago, the Department of Agriculture decided to play down its traditional parity statistics and developed a new one that tells the farmers, who are in the midst of a depression, that they are really doing pretty well after all.

That may be considered permissible politics—I suppose it is—but I think it underscores the decided and growing effort on the part of the Executive to suppress news that is not favorable. This Government can only work when we are told of all the news, the good and the bad, so that the American people might decide which course they must follow. These examples are almost limitless, and I am afraid the situation is getting worse.

Therefore, I think we need a cloture rule which strikes a balance—one which insures that the Senate will not be prevented from carrying out its business and, at the same time, allows and permits the fullest possible debate. I believe that the two-fifths rule, or some similar formula for invoking cloture strikes this delicate balance.

Even though I favor reform of rule XXII, I sympathize with the position of Senators CHURCH, CRANSTON, MATHIAS, and others who are reassessing their position on this issue. In recent months, those opposed to the filibuster, including myself, have used this tactic as a last resort in trying to stop the tragic war in Vietnam and in preventing a stampede toward a ruinous, protectionist trade policy. I see nothing inconsistent in this. For too long now, those of us who favored a reform in rule XXII have taken the position that it would somehow be wrong to engage in or to threaten a filibuster. But I believe that as long as the two-thirds requirement exists, any Member of the Senate should feel free to take advantage of it.

Perhaps, as more and more Senators decide to rely on the advantages inherent in rule XXII, those who have opposed reform will realize that the filibuster cuts two ways, that it can frustrate their aims just as it has frustrated the aims of others in the past. The invention will have turned to plague the inventor.

With this realization, there may be a real chance of modifying rule XXII and adopting a fairer and more realistic formula for invoking cloture.

Mr. CRANSTON. Mr. President, will the Senator yield?

Mr. MONDALE. I yield.

Mr. CRANSTON. I am delighted that the Senator from Minnesota has been rethinking the matter of rule XXII, along with others of us in the Senate, and that he has come to the conclusion that it would be unwise to move to a

simple majority rule for voting cloture. That, plainly, would be the most dangerous thing we might do in this regard, and we would lose all opportunity to slow down decisions that should be slowed down, to perhaps block decisions that should never be made, and to have the opportunity we now have in the Senate to arouse the country before we come to a decision in this body.

I am also delighted that the Senator from Minnesota some time back recognized that, while the rule exists, it is wise to use it in a cause in which he believes deeply and which is important to our country, and that he is not one of those who will refuse to do anything except vote "yes" on a cloture motion simply because that ties into his deeper views about rule XXII itself.

The Senator from Louisiana made the very same point, and I am delighted that he did. I should like to point out to the Senator from Louisiana that there has been a change, also, on the part of Senators from his part of the country. Statistically, it is very interesting that as of June, there were still 12 Senators in this body who had never voted cloture on any issue, no matter what it was. That number has now been reduced to three, since the Maryland Senator saw that the tides of change are blowing in this body in a number of ways with respect to this issue and this rule. The Senator from Maryland spoke of measuring the water in a very interesting way. He spoke of his experience with the Rules Committee in the other body in the first vote he cast in that body on the matter of enlarging the Rules Committee. In some ways, many of us who come new to this body find that the first or second votes we cast relate to rule XXII and the views on changing that rule.

In the same way, there is another controversial matter in this body and across the country, that of seniority. I think that we should recognize the seniority system was in part adopted in both bodies to stop tyranny, that is, the tyranny of a single man or a group of men in determining the composition of the committee structure. I do not want to inject the issue of seniority into this debate, but I would point out that the reasons for doing something in terms of rules and procedures are sometimes lost because of other times and other developments. We should look back upon the real reasons for rule XXII and the real uses to which rule XXII can be put when the rule is before this body for consideration.

I am delighted that the Senator from Idaho (Mr. CHURCH) joined in this discussion, because he has been one of the finest and most effective leaders in past battles on rule XXII, seeking to change it. The fact that he had the greatness within him to recognize the change that has developed, and his readiness to indicate his change in this debate, has made a tremendous contribution, I think, to our deliberations here.

I hope that all of this together will add up to an opportunity for many Senators to rethink this matter in terms of guiding their behavior between now and when rule XXII is before this body once again, or just until that time where the issue would not be how we feel about that rule but the issue before this body in terms of what this body will do when the rule comes up when the new Congress convenes.

Mr. MONDALE. The problem we have is a difficult one. It is not one that lends itself to an easy formula. How do we retain in the Senate this unique power, which I think does not exist in any other parliamentary body in the world and which perhaps has contributed more strength to this body than anything else—that is, the ability to slow down, to delay, and—to put it frankly—to hold up decisions until the views of one-third of the Senate are accommodated.

This has often permitted the full exploration of an issue; and upon the exploration of that issue, there often has resulted a different public policy, once the truth is known. Sometimes, in my opinion, it has been used capriciously, but that is what the rules are for. They can be used legally for whatever purposes they may serve.

I am not yet prepared to say that we should abandon the effort to diminish the percentage for invoking cloture—because I think the two-thirds rule means that one-third of the Senate can block anything which it desires to block. I think that is too small a percentage.

What the percentage should be precisely, I do not know; but my personal judgment is that one-third to too small. Forty percent may be closer. That is still a high hurdle to achieve.

If we look at the percentages by which we were elected, we will find that very few of us were elected by 60 percent; but I think we will all admit that we were the ideal choice. [Laughter.]

Mr. MATHIAS. Mr. President, will the Senator from Minnesota yield?

Mr. MONDALE. I yield.

Mr. MATHIAS. It seems to me, in this discussion, that we should also direct our attention to alternatives, that is, to a modification of rule XXII, whether by other parliamentary procedures which are available, such as moving the previous question, which is a procedure with a long history, going back to the House of Commons at Westminster in England, or whether there are still further alternatives. This might all be made a matter of public scrutiny and public discussion. I think that would be a very valuable addition to the legislative procedures here in the Senate.

Mr. MONDALE. I agree wholeheartedly with the Senator from Maryland on that. Such a discussion might also include the issue of seniority.

Mr. CRANSTON. I agree with the Senator from Maryland that we should consider alternatives. There may well be wise alternatives and gradations of approaches that would enhance the actions and ability of the Senate to act or to prevent action without sacrificing the ability we presently have to protect minorities and slowing down and perhaps blocking action that should not be taken.

I am delighted that the Senator from Minnesota (Mr. MONDALE) said he is not yet ready to vote for anything other than a three-fifths vote on cloture. That indicates he is still in the process of thinking on this matter. Perhaps he will come all the way over to the views some of us have been presenting this morning, sometime in the future.

SUGAR ACT AMENDMENTS OF 1971—CONFERENCE REPORT

Mr. LONG. Mr. President, I submit a report of the committee of conference on the disagreeing votes of the two Houses on the amendment of the Senate to the bill (H.R. 8866) to amend and extend the provisions of the Sugar Act of 1948, as amended, and for other purposes. I ask unanimous consent for the present consideration of the report.

The ACTING PRESIDENT pro tempore. Is there objection to the present consideration of the report?

There being no objection, the Senate proceeded to consider the report which reads as follows:

CONFERENCE REPORT (S. REPT. No. 92-381)

The committee of conference on the disagreeing votes of the two Houses on the amendment of the Senate to the bill (H.R. 8866) to amend and extend the provisions of the Sugar Act of 1948, as amended, and for other purposes, having met, after full and free conference, have agreed to recommend and do recommend to their respective Houses as follows:

That the House recede from its disagreement to the amendment of the Senate and agree to the same with an amendment as follows: In lieu of the matter proposed to be inserted by the Senate amendment insert the following:

That this Act may be cited as the "Sugar Act Amendments of 1971".

SEC. 2. Section 101 of the Sugar Act of 1948, as amended, is amended—

(1) by striking out "the Virgin Islands," in subsection (j);

(2) by amending subsection (o) to read as follows:

"(o) The term 'continental United States' means the States (except Hawaii) and the District of Columbia."; and

(3) by adding at the end thereof the following new subsection:

"(p) The term 'mainland cane sugar area' means the States of Florida and Louisiana."

SEC. 3. Section 201 of the Sugar Act of 1948, as amended, is amended to read as follows:

"ANNUAL ESTIMATE OF CONSUMPTION IN CONTINENTAL UNITED STATES

"SEC. 201. (a) The Secretary shall determine for each calendar year, beginning with 1972, the amount of sugar needed to meet the requirements of consumers in the continental United States and to attain the price objective set forth in subsection (b). Such determination shall be made during October of the year preceding the calendar year for which the determination is being made and at such other times thereafter as may be required to attain such price objective.

"(b) The price objective referred to in subsection (a) is a price for raw sugar which would maintain the same ratio between such price and the average of the parity index (1967=100) and the wholesale price index (1967=100) as the ratio that existed between (1) the simple average of the monthly price objective calculated for the period September 1, 1970, through August 31, 1971, under this section as in effect immediately prior to the date of enactment of the Sugar Act Amendments of 1971, and (2) the simple average of such two indexes for the same period.

"(c) For purposes of subsection (b)—

"(1) The term 'parity index (1967=100)' means the index of Prices Paid by Farmers for Commodities and Services, including Interest, Taxes, and Farm Wage Rates, as published monthly by the Department of Agriculture.

"(2) The term 'wholesale price index' means such index as determined monthly by the Department of Labor."

SEC. 4. (a) Section 202(a) of the Sugar Act of 1948, as amended, is amended to read as follows:

"(a)(1) For domestic sugar-producing areas, by apportioning among such areas 6,910,000 short tons, raw value, as follows:

"Areas	*Short tons, raw value*
Domestic beet sugar	3,406,000
Mainland cane sugar	1,539,000
Hawaii	1,110,000
Puerto Rico	855,000
Total	6,910,000

"(2) To or from the sum of 4,945,000 short tons, raw value, of the quotas for the domestic beet sugar and mainland cane sugar areas there shall be added or deducted, as the case may be, an amount equal to 65 per centum of the amount by which the Secretary's determination of requirements of consumers in the continental United States pursuant to section 201 for the calendar year is greater than or less than 11,200,000 short tons, raw value. Such amount shall be apportioned between the domestic beet sugar area and the mainland cane sugar area on the basis of the quotas for such areas established under paragraph (1) of this subsection in effect immediately prior to the date of enactment of the Sugar Act Amendments of 1971.

"(3) Notwithstanding the foregoing provisions of this subsection, whenever the production of sugar in Hawaii or Puerto Rico in any year results in there being available for marketing in the continental United States in any year sugar in excess of the quota for such area for such year established under paragraph (1) of this subsection, the quota for the immediately following year established for such area under such paragraph shall be increased to the extent of such excess production, except that in no event shall the quota for Hawaii or Puerto Rico, as so increased, exceed the quota which would have been established for such area at the same level needed to meet the requirements of consumers under the provisions of this subsection in effect immediately prior to the date of enactment of the Sugar Act Amendments of 1962. Whenever sugar produced in Hawaii or Puerto Rico in any year is prevented from being marketed or brought into the continental United States in that year for reasons beyond the control of the producer or shipper of such sugar, the quota for the immediately following year established for such area under paragraph (1) of this subsection and the preceding sentence shall, within the limitations of the preceding sentence and section 207, be increased by an amount equal to (A) the amount of sugar so prevented from being marketed or brought into the continental United States, reduced by (B) the amount of such sugar which has been sold to any other nation instead of being held for marketing in the continental United States.

"(4) Beginning with 1973 or as soon thereafter as the quota or quotas can be used, there shall be established for any new continental cane sugar producing area or areas a quota or quotas of not to exceed a total for all such areas of 100,000 short tons, raw value, subject to the requirements of section 302 of this Act."

(b) Section 202(b) of such Act is amended to read as follows:

"(b) For the Republic of the Philippines, in the amount of 1,126,020 short tons, raw value."

(c) Section 202(c) of such Act is amended—

(1) by striking out paragraph (2);

(2) by amending paragraph (3) to read as follows:

"(3) For individual foreign countries other than the Republic of the Philippines and Ireland, by prorating the amount of sugar determined under paragraph (1) of this subsection, less the amounts required to establish a quota as provided in paragraph (4) of this subsection for Ireland, among foreign countries on the following basis:

"(A) For countries in the Western Hemisphere:

"Country	*Per centum*
Cuba	23.74
Dominican Republic	12.80
Mexico	11.32
Brazil	11.04
Peru	7.90
West Indies	4.12
Ecuador	1.63
Argentina	1.53
Costa Rica	1.38
Colombia	1.36
Panama	1.29
Nicaragua	1.29
Venezuela	1.23
Guatemala	1.18
El Salvador	.86
British Honduras	.68
Haiti	.62
Bahamas	.54
Honduras	.24
Bolivia	.13
Paraguay	.13

"(B) For countries outside the Western Hemisphere:

"Country	*Per centum*
Australia	5.02
Republic of China	2.09
India	2.01
South Africa	1.42
Fiji	1.10
Mauritius	.74
Swaziland	.74
Thailand	.46
Southern Rhodesia	.37
Malawi	.37
Uganda	.37
Malagasy Republic	.30

"(C) Notwithstanding the provisions of subparagraphs (A) and (B), for the calendar year 1972 the proration for Panama shall be 0.85 per centum and for Malawi shall be zero per centum and the proration for the other countries named in subparagraphs (A) and (B) shall be increased proportionately."; and

(3) by amending paragraph (4) to read as follows:

"(4) For Ireland, in the amount of 5,351 short tons, raw value, of sugar. The quota provided by this paragraph shall apply for any calendar year only if the Secretary obtains such assurances from such country as he may deem appropriate prior to September 15, preceding such calendar year (October 31, 1971, for the calendar year 1972) that the quota for such year will be filled with sugar produced in such country."

(d) Section 202(d) of such Act is amended—

(1) by striking out "that are members of the Organization of American States" in paragraph (1)(A)(ii);

(2) by striking out "quotas then in effect for such countries" in paragraph (1)(B) and inserting in lieu thereof "percentages stated therein";

(3) by striking out "the Bahama Islands, Bolivia, Honduras, and" in paragraph (3);

(4) by striking out "August" and inserting in lieu thereof "June" in paragraph (4); and

(5) by striking out "1965" each place it appears in paragraph (6) and inserting in lieu thereof "1971".

(e) Section 202(e) of such Act is amended by inserting "or under section 408(c)" after "subsection (d)(1) of this section".

(f) Section 202(f) of such Act is amended to read as follows:

"(f) Whenever any quota is required to be reduced pursuant to subsection (e) or because of a reduction in the requirements of consumers under section 201 of this Act, and the amount of sugar imported from any country or marketed from any area at the time of such reduction exceeds the reduced quota, the amount of such excess shall, notwithstanding any other provision of this section, be charged to the quota established for such country or domestic area for the next succeeding calendar year. Sugar from any country which at the time of reduction in quota has not been imported but is covered by authorizations for importation issued by the Secretary not more than five days prior to the scheduled date of departure shown on the authorization shall be permitted to be entered and charged to the quota established for such country for the next succeeding calendar year."

(g) Section 202(g) of such Act is amended to read as follows:

"(g)(1) The Secretary is authorized to limit, on a quarterly basis only, the importation of sugar within the quota for any foreign country during the first quarter of 1972 if he determines that such limitation is necessary to achieve the objectives of the Act.

"(2) The Secretary is not authorized during the last three quarters of 1972 and the full year 1973, or in any year thereafter except as provided herein, to limit the importation of sugar within the quota for any foreign country through the use of limitations applied on other than a calendar year basis.

"(3) In order to attain on an annual average basis the price objective determined pursuant to the formula specified in section 201 of this Act, the Secretary shall make adjustments in the determination of requirements of consumers in accordance with the following provisions: (A) the determination of requirements of consumers shall not be adjusted whenever the simple average of the prices of raw sugar for seven consecutive market days is less than 4 per centum (or, in the case of any seven consecutive market day period ending after October 31 of any year and before March 1 of the following year, 3 per centum) above or below the average price objective so determined for the preceding two calendar months; (B) the determination of requirements of consumers shall be adjusted to the extent necessary to attain such price objective whenever the simple average of prices of raw sugar for seven consecutive market days is 4 per centum or more (or, in the case of any seven consecutive market day period ending after October 31 of any year and before March 1 of the following year, 3 per centum or more) above or below the average price objective so determined for the preceding two calendar months; and (C) the determination of requirements of consumers for the current year shall not be reduced after November 30 of such year, but any required reduction shall instead be made in such determination for the following year. If in the twelve-month period ending October 31 of any year after 1972 the average price of raw sugar is less than 99 per centum of the price objective determined pursuant to the formula set forth in section 201 (except in the twelve-month period ending October 31, 1973—97 per centum) then, with respect to each subsequent calendar year, the Secretary is authorized after November 30 of the preceding year to limit, on a quarterly basis only, the importation of sugar within the quota of any foreign country during the first or second quarter, or both, of such subsequent year if he determines that such limitation is necessary to achieve the objectives of the Act.

"(4) The Secretary is not authorized to issue any regulation under this Act restricting

the importation, shipment, or storage of sugar to one or more particular geographical areas.

"(5) The imposition of limitations on a quarterly basis under this subsection shall not operate to reduce the quantity of sugar permitted to be imported for any calendar year from any country below its quota for that year."

SEC. 5. (a) Section 204(a) of the Sugar Act of 1948, as amended, is amended—

(1) by striking out the first sentence and inserting in lieu thereof the following: "The Secretary shall, at the time he makes his determination of requirements of consumers for each calendar year and on December 15 preceding each calendar year, and as often thereafter as the facts are ascertainable by him but in any event not less frequently than each sixty days after the beginning of each calendar year, determine whether, in view of the current inventories of sugar, the estimated production from the acreage of sugarcane or sugar beets planted, the normal marketings within a calendar year of new-crop sugar, and other pertinent factors, any area or country will not market the quota for such area or country.";

(2) by striking out "If" in the second sentence and inserting in lieu thereof "Whenever" and by striking out "will be unable to" in such sentence and inserting in lieu thereof "will not";

(3) by amending the first proviso in the second sentence to read as follows: "*Provided*, That any deficit resulting from the inability of a country which is a member of the Central American Common Market to fill its quota or its share of any deficit determined under the foregoing provisions of this subsection shall first be allocated to the other member countries on the basis of the quotas determined pursuant to section 202 for such countries:";

(4) by striking out "will be unable to" in the third, fifth, sixth, and eighth sentences and inserting in lieu thereof "will not";

(5) by striking out the tenth and eleventh sentences and inserting in lieu thereof the following: "in determining and allocating deficits the Secretary shall act to provide at all times throughout the calendar year the full distribution of the amount of sugar which he has determined to be needed under section 201 of this Act to meet the requirements of consumers.";

(6) by striking out "quotas then in effect" wherever it appears and inserting in lieu thereof "quotas determined pursuant to section 202"; and

(7) by striking out "47.22" wherever it appears and inserting in lieu thereof "30.08".

(b) Section 204 of the Sugar Act of 1948, as amended, is amended by adding at the end thereof the following new subsection:

"(c) Notwithstanding the foregoing provisions of this section and section 211(c), if the Secretary determines that Hawaii or Puerto Rico will be unable to fill its quota established under section 203 for marketing for local consumption on a day-to-day basis, he shall allocate a total amount of sugar not in excess of such deficit to the domestic beet sugar area or the mainland cane sugar area, or both, to be filled by direct consumption or raw sugar, as he determines to be required for local consumption."

SEC. 6. Section 205(a) of the Sugar Act of 1948, as amended, is amended by striking out the third sentence and inserting in lieu thereof the following: The Secretary is authorized in making such allotments, whenever there is involved any allotment that pertains to a new or substantially enlarged existing sugar beet processing facility serving a locality or localities which have received an acreage allotment under section 302(b)(3) or that pertains to a sugar beet processing facility described in section 302(b)(9), to take into consideration in lieu of or in addition to the foregoing factors of processing, past marketings and ability to market, the need for establishing an allotment which will permit such marketing of sugar as is necessary for reasonably efficient operation of any such sugar beet processing facility during each of the first three years of its operation."

SEC. 7. Section 206 of the Sugar Act of 1948, as amended, is amended—

(1) by striking out subsections (a) and (b) and inserting in lieu thereof the following:

"(a) If the Secretary determines that the prospective importation or bringing into the continental United States, Hawaii, or Puerto Rico of any sugar-containing product or mixture or beet sugar molasses will substantially interfere with the attainment of the objectives of this Act, he may limit the quantity of such product, mixture, or beet sugar molasses to be imported or brought in from any country or area to a quantity which he determines will not so interfere: Provided, That the quantity to be imported or brought in from any country or area in any calendar year shall not be reduced below the average of the quantities of such product, mixture, or beet sugar molasses annually imported or brought in during such three-year period as he may select for which reliable data of the importation or bringing in of such product, mixture, or beet sugar molasses are available.

"(b) In the event the Secretary determines that the prospective importation or bringing into the continental United States, Hawaii, or Puerto Rico, of any sugar-containing product or mixture or beet sugar molasses will substantially interfere with the attainment of the objectives of this Act and there are no reliable data available of such importation or bringing in of such product, mixture, or beet sugar molasses for three consecutive years, he may limit the quantity of such product, mixture, or beet sugar molasses to be imported or brought in annually from any country or area to a quantity which the Secretary determines will not substantially interfere with the attainment of the objectives of the Act. In the case of a sugar-containing product or mixture, such quantity from any one country or area shall not be less than a quantity containing one hundred short tons, raw value, of sugar or liquid sugar."; and

(2) by adding at the end thereof the following new subsection:

"(d) Notwithstanding the foregoing provisions of this section, the Secretary shall each year, beginning with the calendar year 1972, limit the quantity of sweetened chocolate candy, and confectionery provided for in items 156.30 and 157.10 of part 10, schedule 1, of the Tariff Schedules of the United States which may be entered, or withdrawn from warehouse, for consumption in the United States as hereinafter provided. The quantity which may be so entered or withdrawn during any calendar year shall be determined in the fourth quarter of the preceding calendar year and the total amount thereof shall be equivalent to the larger of (1) the average annual quantity of the products entered, or withdrawn from warehouse, for consumption under the foregoing items of the Tariff Schedules of the United States for the three calendar years immediately preceding the year in which such quantity is determined, or (2) a quantity equal to 5 per centum of the amount of sweetened chocolate and confectionery of the same description of United States manufacture sold in the United States during the most recent calendar year for which data are available. The total quantity to be imported under this subsection may be allocated to countries on such basis as the Secretary determines to be fair and reasonable, taking into consideration the past importations or entries from such countries. For purposes of this subsection the Secretary shall accept statistical data of the United States Department of Commerce as to the quantity of sweetened chocolate and confectionery of United States manufacture sold in the United States."

SEC. 8. Section 207 of the Sugar Act of 1948, as amended, is amended—

(1) by striking out "such year" in subsection (a) and inserting in lieu thereof "the preceding year";

(2) by amending subsection (b) to read as follows:

"(b) The quota for Puerto Rico established under section 202 for any calendar year may be filled by direct-consumption sugar not to exceed an amount equal to 1.5 per centum of the first eleven million short tons, raw value, of the Secretary's determination for the preceding year issued pursuant to section 201, plus 0.5 per centum of any amount of such determination above eleven million short tons, raw value, except that 126,033 short tons, raw value, of such direct-consumption sugar shall be principally of crystalline structure."; and

(3) by striking out subsection (c).

SEC. 9. Section 209(a) of the Sugar Act of 1948, as amended, is amended by striking out "from Hawaii, Puerto Rico, the Virgin Islands, or foreign countries," and inserting in lieu thereof "from any foreign country or any other area outside the continental United States".

SEC. 10. Section 211(a) of the Sugar Act of 1948, as amended, is amended by striking out "continental United States" and inserting in lieu thereof "United States, including Puerto Rico,".

SEC. 11. Section 212 of the Sugar Act of 1948, as amended, is amended by striking out "sugar or" in clauses (1) and (2) and inserting in lieu thereof "direct consumption sugar or".

SEC. 12. (a) Section 302(b) of the Sugar Act of 1948, as amended, is amended—

(1) by adding at the end of paragraph (1) the following: "In establishing proportionate shares for farms in the mainland cane sugar area, the Secretary may establish separate State acreage allocations, may determine and administer the proportionate shares for farms in one State by a method different from that used in another State, may include in such State allocation an acreage reserve to compensate for anticipated unused proportionate shares, may make conditional allocations to farms from such reserve and establish conditions which must be met in order for such allocations to be final, may make an adjustment in a State's allocation in any year to compensate for a deficit or surplus in a prior year if the actual amount of unused proportionate shares in such State for such prior year was larger or smaller than such anticipated amount of unused proportionate shares, and, in establishing State allocations and farm proportionate shares, may use whatever prior crop year or years he considers equitable in his consideration of past production.";

(2) by adding at the end of paragraph (2) the following: "The personal sugar beet production history of a farm operator who dies, or becomes incapacitated, shall accrue to the legal representative of his estate or to a member of his immediate family if such legal representative or family member continues within three years of such death or incapacity the customary sugar beet operations of the deceased or incapacitated operator. If in any year during this period sugar beets were not planted by such legal representative or member of the family, production history shall be credited to such year equal to the acreage last planted by the deceased or incapacitated farm operator.";

(3) by amending paragraph (3) to read as follows:

"(3) In order to make acreage available for growth and expansion of the beet sugar industry, the Secretary, in addition to protect-

ing the interests of new and small producers by regulations generally similar to those heretofore promulgated by him pursuant to this Act, shall allocate as needed from the national sugar beet requirements established by him, during 1972, 1973, and 1974, the acreage required to yield not more than a total of 100,000 short tons, raw value, of sugar for localities to be served by new or substantially enlarged existing sugar beet processing facilities. Allocations shall be for a period of three years and limited for any one processing facility to the acreage required to yield a maximum of 50,000 short tons, raw value, of sugar and a minimum of 25,000 short tons, raw value, of sugar. The acreage so allocated shall be distributed on a fair and reasonable basis to new and old sugar beet farms to the extent that it can be utilized without regard to any other acreage allocations to States determined by the Secretary. At the time the Secretary allocates acreage for a new or substantially enlarged existing sugar beet processing facility for any year, which determination shall be made as far in advance of such year as practicable, such allocation shall thereby be committed to be in effect for the year in which production of sugar beets is scheduled to commence or to be substantially increased in the locality or localities determined by the Secretary to receive such acreage allocation for such year, such determination by the Secretary shall be final, and such commitment of acreage allocation shall be irrevocable upon issuance of such determination of the Secretary by publication in the Federal Register; except that if the Secretary finds in any case that the construction of new or the substantial enlargement of existing sugar beet processing facilities and the contracting for processing of sugar beets has not proceeded in substantial accordance with the representations made to him as a basis for his determination of acreage allocation, he shall revoke such determination in accordance with and upon publication in the Federal Register of such findings. In determining acreage allocations for a locality or localities serving new or substantially enlarged existing sugar beet facilities and whenever proposals are made to construct new or to substantially enlarge existing sugar beet processing facilities in two or more localities (where sugar beet production is proposed to be commenced or to be substantially increased in the same year), the Secretary shall base his determination and selection upon the firmness of capital commitment, the proven suitability of the area for growing sugar beets and the relative qualifications of localities and proposals under such criteria. In making his determination under the preceding sentence, the Secretary shall give a preference to any processing facility located or to be located in or adjacent to growing areas where processing facilities were closed during 1970 or thereafter if he finds that sugar beets can and will be grown in sufficient quantity and quality to make the production of sugar beets and the operation of such facility successful. If proportionate shares are in effect in either of the two years immediately following the year for which such initial acreage allocation is made in any locality, the Secretary shall adjust the initial allocation in the same proportion as the State's acreage is adjusted from its acreage of the year in which such initial allocation was made.";

(4) by amending paragraph (4) to read as follows:

"(4) The allocation of the national sugar beet acreage requirement to States for sugar beet production, as well as the acreage allocation for new or substantially enlarged existing sugar beet processing facilities, shall be determined by the Secretary after investigation and notice and opportunity for an informal public hearing.";

(5) by striking out "in any local producing area" in paragraph (5);

(6) by amending paragraph (9) to read as follows:

"(9) The Secretary is authorized to reserve from the national sugar beet acreage requirements established by him for the 1972, 1973, and 1974 crops of sugar beets the acreage required to yield 25,000 short tons of sugar, raw value, for any sugar beet processing facility which closed during 1970, if he is satisfied that such facility will resume operations and will be operated successfully and that the area which will serve such facility is suitable for growing sugar beets. The Secretary shall allocate the acreage provided for in this paragraph to farms on such basis as he determines necessary to accomplish the purposes for which such acreage is provided under this paragraph."; and

(7) by adding at the end of such subsection a new paragraph as follows:

"(10) The Secretary shall credit to the farm of any producer (or to the producer in a personal history State) who has lost a market for sugar beets as a result of (A) the closing of a sugar beet factory in any year after 1970; (B) the complete discontinuance of contracting by a processor after 1970 in a State; or (C) the discontinuance of contracting by a processor after 1970 in a substantial portion of a State in which the processor contracted a total of at least 2,000 acres of the 1970 crop of sugar beets, an acreage history (or production history) for each of the next three years equal to the average acreage planted on the farm (or by the producer) in the last three years of such factory's operation or processor's contracting, and any unused proportionate share shall not be transferred to other farms (or producers)."

(b) Section 302(c) of such Act is amended to read as follows:

"(c) In order to enable any new cane sugar producing area to fill the quota to be established for such area under section 202(a)(4), the Secretary shall allocate an acreage which he determines is necessary to enable the area to meet its quota and provide a normal carryover inventory. Such acreage shall be fairly and equitably distributed to farms on the basis of land, labor, and equipment available for the production of sugarcane, and the soil and other physical factors affecting the production of sugarcane. The acreage allocation for any year shall be made as far in advance of such year as practicable, and the commitment of such acreage to the area shall be irrevocable upon issuance of such determination by publication thereof in the Federal Register, except that, if the Secretary finds in any case that construction of sugarcane facilities and the contracting for processing of sugarcane has not proceeded in substantial accordance with the representation made to him as a basis for his determination of distribution of acreage, he shall revoke such determination in accordance with and upon publication in the Federal Register of such findings. In making his determination for the establishment of a quota and the allocation of the acreage required in connection with such quota, the Secretary shall base such determination upon the firmness of capital commitment and the suitability of the area for growing sugarcane and, where two or more areas are involved, the relative qualifications of such areas under such criteria. If proportionate shares are in effect in such area in the two years immediately following the year for which the sugarcane acreage allocation is committed for any area, the total acreage of proportionate shares established for farms in such area in each such two years, shall not be less than the larger of the acreage committed to such area or the acreage which the Secretary determines to be required to enable the area to fill its quota and provide for a normal carryover inventory."

SEC. 13. Section 303 of the Sugar Act of 1948, as amended, is amended by striking out "which cause such damage to all or a substantial part of the crop of sugar beets or sugarcane in the same factory district (as established by the Secretary), county, parish, municipality, or local producing areas,".

SEC. 14. Section 307 of the Sugar Act of 1948, as amended, is amended by striking out "Puerto Rico, and the Virgin Islands" and inserting in lieu thereof "and Puerto Rico".

SEC. 15. Section 403 of the Sugar Act of 1948, as amended, is amended by adding at the end thereof a new subsection as follows:

"(c) Whenever the Secretary determines that such action is necessary to protect the interests of the United States, consumers of sugar, or the exporters or importers of sugar, he is authorized to require, in accordance with such rules and regulations as he may prescribe, any or all shipments of imported sugar to be weighed by persons not controlled, directly or indirectly, by any person having a direct financial interest in such sugar."

SEC. 16. Section 404 of the Sugar Act of 1948, as amended, is amended by inserting before the period at the end of the first sentence the following: "and, except as provided in sections 205 and 306, to review any regulation issued pursuant to this Act in accordance with chapter 7 of title 5, United States Code".

SEC. 17. Section 408(c) of the Sugar Act of 1948, as amended, is amended to read as follows:

"(c) In any case in which a nation or a political subdivision thereof has, on or after January 1, 1961, (1) nationalized, expropriated, or otherwise seized the ownership or control of the property or business enterprise owned or controlled by United States citizens or any corporation, partnership, or association not less than 50 per centum beneficially owned by United States citizens, or (2) imposed upon or enforced against such property or business enterprise so owned or controlled, discriminatory taxes or other exactions, or restrictive maintenance or operational conditions (including limiting or reducing participation in production, export, or sale of sugar to the United States under quota allocation pursuant to this Act) not imposed or enforced with respect to the property or business enterprise of a like nature owned or operated by its own nationals or the nationals of any government other than the Government of the United States, or (3) imposed upon or enforced against such property or business enterprise so owned or controlled, discriminatory taxes or other exactions, or restrictive maintenance or operational conditions (including limiting or reducing participation in production, export, or sale of sugar to the United States under quota allocation pursuant to this Act), or has taken other actions, which have the effect of nationalizing, expropriating or otherwise seizing ownership or control of such property or business enterprise, or (4) violated the provisions of any bilateral or multilateral international agreement to which the United States is a party, designed to protect such property or business enterprise so owned or controlled, and has failed within six months following the taking of action in any of the above categories to take appropriate and adequate steps to remedy such situation and to discharge its obligations under international law toward such citizen or entity, including the prompt payment to the owner or owners of such property or business enterprise so nationalized, expropriated or otherwise seized or to provide relief from such taxes, exactions, conditions or breaches of such international agreements, as the case may be, or to arrange, with the agreement of the parties concerned, for submitting the question in dispute to arbitration or conciliation in accordance with procedures under which final and binding decision or settlement will be reached and full payment or arrangements with the owners for such payment made within twelve months following such sub-

mission, the President may withhold or suspend all or any part of the quota under this Act of such nation, and either in addition or as an alternative, the President may, under such terms and conditions as he may prescribe, cause to be levied and collected at the port of entry an impost on any or all sugar sought to be imported into the United States from such nation in an amount not to exceed $20 per ton, such moneys to be covered into the Treasury of the United States into a special trust fund, and he shall use such fund to make payment of claims arising on or after January 1, 1961, as a result of such nationalization, expropriation, or other type seizure or action set forth herein, except that if such nation participates in the quota for the West Indies, the President may suspend a portion of the quota for the West Indies which is not in excess of the quantity imported from that nation during the preceding year, until he is satisfied that appropriate steps are being taken, and either in addition or as an alternative he may cause to be levied and collected an impost in an amount not to exceed $20 per ton on any or all sugar sought to be imported into the United States from such nation for the payment of claims as provided herein. Any quantity so withheld or suspended shall be allocated under section 202(d)(1)(B) of this Act. With respect to any action taken during 1961 in any of the categories set forth in this subsection, the requirements of this subsection relating to levying and collecting an impost shall apply only if the President so determines."

SEC. 18. (a) Section 412 of the Sugar Act of 1948, as amended, is amended to read as follows:

"TERMINATION

"SEC. 412. The powers vested in the Secretary under this Act shall terminate on December 31,1974, or on March 31 of the year of termination of the tax imposed by section 4501(a) of the Internal Revenue Code of 1954, whichever is the earlier date, except that the Secretary shall have power to make payments under title III—

"(1) under programs applicable to the crop year 1974 and previous crop years, if the powers vested in the Secretary otherwise terminate on December 31, 1974, or

"(2) under programs applicable to the crop years preceding the calendar year in which the tax imposed under section 4501(a) of the Internal Revenue Code of 1954 terminates, if the powers vested in the Secretary otherwise terminate before December 31, 1974."

(b) Section 4501(b) of the Internal Revenue Code of 1954 (relating to termination of tax on manufactured sugar) is amended by striking out "June 30, 1972" each place it appears therein and inserting in lieu thereof "June 30, 1975, or June 30 of the first year commencing after the effective date of any law limiting payments under title III of the Sugar Act of 1948, as amended, whichever is the earlier date".

SEC. 19. The provisions of this Act shall become effective on January 1, 1972, except that the amendments made by sections 3, 4, 5, and 7(2) of this Act shall become effective on the date of enactment of this Act for purposes of actions relating to 1972 and subsequent years.

And the Senate agree to the same.

RUSSELL B. LONG,
CLINTON P. ANDERSON,
HERMAN E. TALMADGE,
WALLACE F. BENNETT,
CARL T. CURTIS,
Managers on the Part of the Senate.

W. R. POAGE,
THOMAS G. ABERNETHY,
THOMAS S. FOLEY,
PAGE BELCHER,
CHARLES M. TEAGUE,
Managers on the Part of the House.

Mr. LONG. Mr. President, the conferees appointed by the Senate met with their counterparts in the House and have reached a settlement of the differences between the House and Senate versions of the Sugar Act. Generally speaking, I think we managed to agree on many of the best features in the Senate and House versions, although I am frank to say that I had to yield on an amendment which I felt very strongly in favor of dealing with foreign expropriations of U.S. property. In yielding on this matter, I reserved my rights to offer this expropriation amendment on another piece of legislation.

In spite of losing this expropriation amendment, the conference agreement is a good compromise worthy of approval by the Senate. The allocation of foreign quotas is fair to both the large domestic supplying countries in the Caribbean area as well as the smaller developing countries in Latin America and Africa.

Some of the Members will be happy to know that the conferees agree to substantial quotas for several black African nations which heretofore have not received any quotas. The distinguished chairman of the Subcommittee on African Affairs, Senator GALE MCGEE, specifically asked me about this matter during the Senate debate, and at that time I promised we would do what we could in conference.

I am happy to report that these countries now have quotas approximately equal in total to the quota provided South Africa, which was a bone of contention in the Senate.

I ask unanimous consent to submit for the RECORD a table showing the distribution of foreign quotas under the conference agreement as compared with the present act distribution, and the Senate and House versions of this bill.

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

FOREIGN SUGAR QUOTAS UNDER CONFERENCE DECISIONS—COMPARED TO HOUSE AND SENATE VERSIONS OF H.R. 8866

[Short tons, raw value]

Producing area	Present act distribution [1]	House bill [2]	Senate bill [3]	Conference decisions [3]
Total domestic areas	6,410,000	6,410,000	6,285,000	6,285,000
Mexico	557,748	537,545	590,894	561,581
Dominican Republic	545,481	525,737	659,874	634,874
Brazil	545,581	525,737	577,905	547,905
Peru	435,087	418,982	391,839	391,839
West Indies	188,777	192,251	204,520	204,520
Ecuador	79,370	80,774	79,084	80,774
French West Indies	59,384	0	63,868	0
Argentina	67,102	76,050	67,062	76,050
Costa Rica	64,217	65,185	71,110	68,610
Nicaragua	64,217	65,185	64,217	64,217
Colombia	57,723	73,688	61,047	67,368
Guatemala	54,115	55,265	59,835	58,350
Panama [2]	40,406	41,567	40,406	41,567
El Salvador	39,682	40,151	43,964	42,693
Haiti	30,305	30,704	30,305	30,704
Venezuela	27,419	36,845	61,026	61,026
British Honduras	13,752	33,537	14,874	33,537
Bolivia	6,494	17,005	6,193	6,193
Honduras	6,494	17,005	6,494	11,750
Bahamas	10,000	33,537	10,000	27,000
Paraguay	0	15,116	0	6,193
Western Hemisphere	2,893,254	2,881,866	3,104,517	3,016,751
Australia	203,785	206,025	196,162	203,785
Republic of China	84,910	85,844	81,734	84,910
India	81,514	82,494	77,973	81,514
South Africa	60,003	60,300	57,745	57,745
Fiji Islands	44,719	44,806	43,034	44,719
Thailand	81,681	18,844	14,152	18,681
Mauritius	81,681	30,150	17,761	30,150
Malagasy Republic	9,623	15,075	9,223	12,149
Swaziland	7,359	30,150	7,084	30,150
Malawi [3]	0	0	0	0
Uganda	0	15,075	0	15,075
Eastern Hemisphere	529,275	588,763	504,868	578,878
Philippines	1,362,120	1,314,020	1,300,264	1,314,020
Ireland	5,351	5,351	5,351	5,351
Total foreign	4,790,000	4,790,000	4,915,000	4,915,000
Total	11,200,000	11,200,000	11,200,000	11,200,000

[1] Distribution of foreign quotas under present act as recommended to the Senate Finance Committee by the Administration.

[2] For 1973 and subsequent years the quota for Panama would be increased to 62,947 tons and a quota would be established for Malawi of 15,000 tons and other quotas reduced proportionately. Reflects the allocation and proration of 500,000 tons of domestic deficits to foreign countries.

[3] Reflects the allocation and proration of 625,000 tons of domestic deficits to foreign countries.

Mr. LONG. Mr. President, there are several other matters which I think merit some discussion. You will recall that when the Senate debated the candy amendment I urged the senior Senator from Illinois to offer an amendment to strike the quotas on candy which I personally felt were not justified and which I opposed in committee. The Senator chose not to do so. When we got into the conference, the House very quickly wanted to recede on that matter and, obviously, the Senate conferees were in no position to argue against a quota provision which the full Senate had approved. Consequently, the candy quota provisions are in the conference agreement. I will say, however, that these quota provisions are going to be in effect only for the life of the Sugar Act, which will expire in 1974, and that, under this quota, there is some room for imports to grow. I do think it is unfortunate, however, that we have legislated a quota for an industry where imports are only 4 percent of domestic production while not providing relief for other industries whose imports are much greater.

Mr. President, the compromise agreed to contains many other provisions which

are fully explained in the conference report. If any Senator has any questions with respect to them, I will be happy to respond.

There is one matter of some importance to the administration of the sugar program which has come up since the Senate acted on the bill. I refer to the wage-price freeze announced by the President on August 15. The wage-price freeze should apply to the sugar program, and indeed it does. This is entirely proper and in keeping with the theory of wage-price ceilings. However, I point out that the wage-price ceiling and the Sugar Act can be construed in a manner which creates inequities and unjust enrichments causing virtually impossible administrative problems.

On the other hand, they can be applied in a manner which eliminates inequities and unjust enrichments, treats everyone fairly, and facilitates the orderly administration of the Sugar Act. The conferees on the bill studied this matter and concluded that the orderly procedure would be to freeze all raw sugar prices at the level at which raw sugar moved during the 30 days preceding the President's announcement.

I ask unanimous consent that the full statement of the managers on this matter be printed in the RECORD at this point.

There being no objection, the statement (an excerpt from the conference report) was ordered to be printed in the RECORD, as follows:

XVII. WAGE-PRICE FREEZE AND THE SUGAR ACT

On August 15 the President issued Executive Order 11615 imposing a freeze on wages and prices. The purpose of this Executive Order is to limit prices for commodities to the highest price for which sales of the commodity were made during the 30-day period preceding the Executive Order. The Sugar Act, too, is a price control mechanism. Its purpose is to stabilize prices of sugar in the interest of consumers, farmers, and processors.

It has come to the attention of the conferees that administration of the President's Executive Order may have the effect of disrupting the orderly operation of the Sugar Act by establishing different price ceilings for different processors of raw sugar solely on the basis of when sugar cane is harvested, processed, and marketed as raw sugar. This disruption could lead to inequities among processors and to unjust enrichment of refiners who purchase raw sugar from mainland raw sugar processors frozen to price structures which existed under the Sugar Act in the spring of 1971 or the fall of 1970 when these last sold raw sugar.

It is the feeling of the conferees that if Executive Order 11615 and the Sugar Act can be construed together to eliminate inequities and unjust enrichments, such a construction would be in order. The conferees are further of the opinion that if the raw sugar price ceiling were frozen in all cases at the price at which raw sugar was sold during the 30-day period preceding the issuance of Executive Order 11615, it would facilitate the administration of the Sugar Act and the achievement of the price objective stated therein.

Mr. LONG. I might say that this sugar bill substantially revises the method for adjusting sugar supplies and makes variations in the quantity of sugar available depend solely on price changes. With prices not permitted to vary, the Secretary of Agriculture may find himself hard pressed to assure adequate supplies of sugar as our consumption increases.

In my judgment, he should have sufficient flexibility to make certain that no sugar shortages occur during the continuance of wage-price controls. I urge the Cost of Living Council to carefully study the sugar program and to work with the Department of Agriculture in an effort to avoid sugar shortages detrimental to the interest of consumers.

Mr. President, I yield to the distinguished senior Senator from Utah, the ranking Republican on the Finance Committee, who is one of the most knowledgeable men in the U.S. Senate on this and many other subjects.

Mr. BENNETT. Mr. President, I thank the distinguished Senator from Louisiana, chairman of the Committee on Finance. We worked long and hard on the Sugar Act, and I believe the results are quite satisfactory to all the segments of the sugar industry as well as to the consumer. The conference agreement would allocate quotas of 6.9 million tons to the beet and cane producers on the mainland and in Hawaii and Puerto Rico in an equitable manner, and would provide room for growth in domestic production of both beet and cane sugar. At the same time, foreign nations will receive in their own right a quota of 4.3 million tons, roughly 38 percent of our domestic consumption. In addition, because of the expected shortfalls in Puerto Rican production, foreign nations will receive an additional deficit allocation of 625,000 tons, bringing their total quotas up to 4.9 million tons. These quotas are generally provided on the basis of performance, although in several instances the conferees agreed to provide sugar quotas for countries who have not been part of the program under prior Sugar Acts. Thus, as the chairman pointed out, the black African States of Malawi and Uganda will get new sugar quotas, and Swaziland will receive a substantial increase in its quota.

The conference agreement, like most other conference agreements, is a satisfactory compromise between the Senate and House versions. The chairman of the Finance Committee did an excellent job of moving the conferees ahead to resolve their differences in a compromising attitude. I know that he personally felt very strongly about preserving his own amendment dealing with expropriations but he was very magnanimous in yielding on this point.

I believe this compromise provides the Senate with a good bill, one which is worthy of Senators' support, and I hope it will be promptly agreed to.

The ACTING PRESIDENT pro tempore (Mr. HOLLINGS). The question is on agreeing to the conference report.

The report was agreed to.

ORDER OF BUSINESS

The ACTING PRESIDENT pro tempore (Mr. HOLLINGS). The time of the Senators from California and Minnesota has now expired.

At this time, the distinguished Senator from Virginia (Mr. BYRD) is recognized, under the previous order, for 15 minutes.

MILITARY PROCUREMENT AUTHORIZATIONS, 1972—SECTION 503

Mr. BYRD of Virginia. Mr. President, I address myself to section 503 of the military procurement bill, H.R. 8687. Section 503 would end the dependence of the United States on Communist Russia for a vital defense material, chrome ore.

The distinguished Senator from Arkansas (Mr. FULBRIGHT) has presented an amendment to section 503 which will be voted on either today or tomorrow. The Fulbright proposal would strip the Congress of the power to act and give that power to the President of the United States.

It seems to me that this is a matter that Congress itself should express itself on. The Fulbright proposal goes contrary to the trend in the Senate over the past 2 or 3 years to cease giving more power to the Chief Executive. It goes contrary to the desire of many of us for the Senate to reassert itself in the field of foreign policy.

I think that is what the Senate should do. It should not turn over to the President these vital decisions, decisions that appropriately shall be made by the legislative branch.

Mr. President, in regard to the matter of sanctions against Rhodesia, banning trade with Rhodesia, I was very much impressed with the speech made by the distinguished minority leader, the Senator from Pennsylvania (Mr. SCOTT). That speech is printed on page 33078 of the CONGRESSIONAL RECORD for September 23, 1971.

In the course of his remarks, the distinguished Senator from Pennsylvania said:

First, there are legitimate and important national security considerations involved in reliance on the Soviet Union for more than 60 percent of our national needs for chrome.

I agree with that statement, as did the vast majority of the members of the Committee on Armed Services which wrote section 503 into the pending legislation.

Mr. President, I quote further from the remarks of the distinguished minority leader, the Senator from Pennsylvania:

Second, the Rhodesian sanctions are economically damaging to U.S. interest. The stainless steel industry is being hard pressed by imports, much of which, we believe, are based on Rhodesian chrome which is bootlegged to foreign steel producers at lower costs.

There again I feel that the Senator from Pennsylvania is accurate and correct in his assertion.

The specialty steel industry in his State of Pennsylvania is being very hard hit by this embargo on chrome from Rhodesia.

I read into the RECORD yesterday and on one day last week a telegram which I had received from the director of district 19 of the United Steelworkers of America in which he stated that unless section 503 is enacted into law, the specialty steel industry in the United States will go out of business and thousands of black and white workers will be made jobless.

Mr. President, I read further from

the speech by the distinguished Republican leader of the Senate:

Third, the rising prices of chrome ore, which result from Russian domination of the world market, are costly, inflationary, and damaging to the U.S. chrome industry, the ferroalloys industry and the stainless steel industry.

There, again, I think that the distinguished Senator from Pennsylvania is on sound ground. It ties in with the views of the director of District 19 of the United Steelworkers of America. The present embargo on chrome from Rhodesia is having—and if it is continued will have—a very damaging effect on the jobs of the Americans who work in the specialty steel plants throughout our Nation. Many of them are in Pennsylvania. However, many are in other States as well.

The point raised by the distinguished Republican leader in his speech of September 23 is an excellent point.

The fourth point which he raised also is a significant one. I want to read the comments of the Senator from Pennsylvania into the RECORD at this point. The Senator from Pennsylvania said:

Fourth, the Rhodesian sanctions can probably be regarded as a failure. Economic sanctions have never been a particularly successful diplomatic weapon. The Rhodesian sanctions now have been in effect more than 4½ years without achieving their objective. Furthermore, exports of chrome ore and chrome products have never been a major factor in the international trade of Rhodesia—less than 2 percent of Rhodesia's presanctions exports—and removal of the sanctions on chrome would not have a significant effect on the Rhodesian economy or on the effectiveness of the U.N. sanctions.

The Senator from Pennsylvania next makes another extremely important point. I, too, made the same point. However, the Senator from Pennsylvania made it much better than I did. I therefore want to read his comments into the RECORD at this point. The Senator from Pennsylvania said:

The sanctions were imposed by the Security Council and must be lifted by the Security Council. Russia or any other Security Council member could veto a Security Council resolution aimed at ending the sanctions and leave the issue hopelessly muddy and confused. If the U.S. Government bases its decision solely on the U.N. action, it could be trapped by a veto.

The senior Senator from Pennsylvania (Mr. SCOTT) is so right in his assertion.

As the Senator from Pennsylvania points out, it is necessary, if we are ever going to change these sanctions against Rhodesia, that it be done by the United States itself.

As a matter of fact, the sanctions were put on unilaterally by the United States. The Security Council cannot put on the sanctions per se. The Security Council can urge and recommend that a country embargo trade with another nation. However, the United Nations by itself cannot enact sanctions against another country.

The U.S. sanctions against Rhodesia were put on unilaterally by one individual, the President of the United States, about 5 years ago.

Mr. President, I want to end by quoting a statement made on September 25, 1969, by the able and beloved senior Senator from Vermont (Mr. AIKEN) in regard to a comment on Senate Resolution 205.

This resolution introduced by the Senator from California (Mr. CRANSTON) and the Senator from Vermont (Mr. AIKEN) dealt with another matter. It dealt with the question of recognition of foreign governments, but in the course of his remarks the distinguished Senator from Vermont had this to say:

Rhodesia has been mentioned. I think it is ironic for the United States to discontinue its purchases of precious minerals—titanium, platinum, and chromium—from Rhodesia, thus forcing Rhodesia to put those minerals on the world market, where they can be purchased by Russia and sold to us at a substantial profit. It does not make sense. In private business, that would not be considered good business at all.

I agree with him 100 percent.

The Senator from Vermont has so much good commonsense, which fact is recognized by all his colleagues in the Senate, that I felt I wanted to read those excellent remarks of his which were made on September 25, 1969, into the RECORD.

Mr. President, I conclude by summarizing the reasons I feel the Senate should reject the proposal of the Senator from Arkansas and sustain the action the Senate took last Thursday by a vote of 46 to 36.

First. By sustaining last week's action, the Senate would be ending U.S. dependence on Communist Russia for a strategic and vital defense material, namely, chrome.

Second. Sustaining the Senate's position of last week would help save jobs in a period of high unemployment. As evidence, I point to the statement, inserted several times in the CONGRESSIONAL RECORD, by the director, District 19, United Steel Workers of America, who says that unless the Congress takes such action, there will be no specialty steel industry in the United States. He expressed his deep concern for the jobs of the black workers and the white workers in that industry.

Third. The Fulbright proposal would give more power to the President and reduce the Senate's role in foreign policy. The Senate has made great progress in the last 2 or 3 years in reasserting itself and in facing up to its responsibilities. Senator FULBRIGHT's proposal would reverse that trend and, as he states, give the option to the executive branch to proceed as it wishes. He would leave the determination in the hands of the President at the expense of the Senate.

ORDER OF BUSINESS

Mr. LONG. Mr. President, I ask unanimous consent that I might proceed on a point of personal privilege for 5 minutes.

The PRESIDING OFFICER. Without objection, it is so ordered. The Senator from Louisiana is recognized.

PERSONAL STATEMENT OF SENATOR LONG

Mr. LONG. Mr. President, some days ago I saw an article in Jack Anderson's column, apparently from someone in the office of Mr. Gordon Rule, if not Mr. Gordon Rule himself—I notice he was quoted in the article—inferring that members of the Louisiana delegation brought improper influence.

I know what a Senator is supposed to do and I know what a Senator is not supposed to do. I am here to affirmatively insist that I have done what a Senator should do as his duty, no more and no less.

If anyone is guilty of improper conduct, it is Mr. Gordon Rule, both for publicizing himself unjustifiably and impugning the honor and integrity of four members of the Louisiana delegation, of which I include myself.

The facts here are that the Avondale Shipyard is perhaps the most efficient shipbuilder in the United States. It has received all sorts of decorations, honors, and accolades for the efficiency and high-quality performance of the firm and the integrity of its officers and employees. That firm was one of those firms awarded a large contract for building destroyer escorts. During the course of performance on a 24-destroyer escort program there were many change orders, greatly increasing the cost, and providing the Navy with a much more efficient combat-ready service than the original specifications required.

In 23 years I do not recall that firm ever requesting this Senator to express himself one way or the other on the settlement of the many complex controversies that existed on the many, many ships that had been built for the merchant marine and the U.S. Navy.

More than a year ago, Mr. Zac Carter, who is one of the most highly regarded businessmen in Louisiana, said he thought it would be his sad duty to call upon his Louisiana delegation to seek justice. The Navy disagreed that it owed Avondale Shipyard $71 million, and the matter had been held up more than a year by Gordon Rule. The interest on that money, for which they had not been reimbursed, would be $5,680,000 a year. It has now been 2 years that the firm has been denied any payment of its claim, and that would be $11,360,000 in interest expenses lost.

All of the subcontractors are calling on the company to make an effort to pay them. The firm is in default in paying the subcontractors. It was pleading that the matter be settled.

On December 1 of last year, the two Senators from Louisiana and the two Congressmen from the New Orleans districts signed a statement asking that this matter be acted upon and decided. About 8 months later, the president of the firm explained his problem to me. I can only judge the facts as I know them, but I know of no more reputable businessman in my State or in the Nation.

I placed a call to the Secretary of the Navy in the privacy of my office, with no one present but me. I tried to address myself to the Secretary of the Navy as politely as I know how, and I said that this matter had been held up too long. I said that it is a firm which is doing a good job, which is performing efficiently, and it could lose a great deal of money on a contract on which it should ex-

pect fair settlement, if only because of the interest expense for which it could not be reimbursed.

I only know the facts presented by the firm, and it is a reliable firm. Mr. Rule would like to have the whole matter gone through again and have a great deal of additional proof.

People have to do business by the rules as they find them. The Navy has already settled with the Todd Shipyards for two similar contracts and has made a more favorable award than the Avondale firm is seeking.

Mr. Rule, it seems, wants records and information of a sort that shipbuilders do not usually keep and which are not available. The Avondale firm has stated there is no way to support the Avondale claim any more than the Todd claims, but they supported their claim as well as the Todd claim was supported.

Those are the facts on which this Senator complained about the 2-year delay in this matter. The Secretary of the Navy was most polite. He was so polite, in fact, that I gained the impression he agreed with what I had to say.

I notice that according to the newsstory Rear Adm. Nathan Somenshein, head of the Naval Ships System Command, denied that any improper pressure was brought to bear on anyone.

I state affirmatively that any time any department of the Government does business in such a way that a contractor is denied payment of money that he is owed for 2 long years without any way under the law he can recover the interest expense which could well be 16 percent or more, that is an outrage and disgrace to the Government, and it tends to make all contractors bidding for future Government contracts bid a higher figure, sufficient to include the cost of interest on their money during the years they will be denied payment for money they are owed.

Those are the facts as I understand them. I invite a public hearing anywhere and I welcome the opportunity to testify publicly under oath about this matter with respect to everything I know about it.

I highly resent this man Rule, whom I have never met, never seen, had no knowledge of, did not know he even existed until this matter came up. I think I am entitled to a contrite apology but, wherever I meet him, I will try to be as polite as I can be to one who has offended me needlessly.

Anything he knows about me he would have to know secondhand. I would like to ask him politely why it is necessary for these people to wait 2 years for a settlement of a claim they are obviously entitled to be paid for. I have no idea whether the $71 million is the correct figure, but obviously the Navy owes these people a large amount of money and has owed it for 2 years. These people are irretrievably injured and should be paid. I am ready to testify on oath before anyone that no improper influence was used.

Any constituent in the United States who has suffered this kind of delay in the settlement of this matter has a right to complain to any Senator. If I were such a constituent and I complained to my Senator and he turned a deaf ear to my proper complaint that I had been done an injustice costing me millions of dollars by any incompetence or any inefficiency in the United States Government, I would not vote for him.

ORDER OF BUSINESS

The PRESIDING OFFICER. There will now be a short period for the transaction of routine morning business, with each Senator limited to 3 minutes.

FORCED BUSING OF SCHOOLCHILDREN

Mr. GAMBRELL. Mr. President, several days ago I addressed the Senate on the question of forced busing of schoolchildren. Today I hold in my hand a letter addressed to me by the State superintendent of schools of the State of Georgia, The Honorable Jack P. Nix, furnishing me a resolution adopted by the State board of education in Georgia, stating that it sincerely solicits my support in the implementation of the position expressed in this document by the State board of education.

Enclosed is a copy of a letter addressed by Mr. Nix to President Nixon outlining the board's position and also enclosing the resolution which I have referred to.

I ask unanimous consent that the letter addressed to me, with its enclosures, be included in the RECORD at the end of my remarks.

The PRESIDING OFFICER. Without objection, it is so ordered.

(See exhibit 1.)

Mr. GAMBRELL. Mr. President, the resolution concludes with the provision that this State board of education—

Totally and unequivocally rejects the concept or idea of transporting or busing school children away from their homes to attend school.

The resolution also recites that—

Quality education is available to most Georgians only through a strong and viable system of public education and that anything that tends to weaken this system should and must be opposed by this Board.

That one of the most desirable characteristics of a community school is that it engenders community and personal pride.

That community schools give individuals lasting roots so necessary for survival and happiness in this complex age.

I suggest that one of the points that has been overlooked in the discussion of this subject is the importance to an individual schoolchild and also to his parents of participating in a community school. A school, like a church, like a civic club, in fact like the Government itself, is an enriching element in any community. An opportunity to participate in one's community, rather than be transported and be transferred to another community, is an important matter.

I would like to also emphasize this part of the letter written by the State superintendent of schools in Georgia to President Nixon:

As State Superintendent of Schools for the State of Georgia and Executive Officer of the State Board of Education, I can assure you that we have expended our energies unnecessarily in recent years in administering inconsistent rules and regulations from Federal officials, as well as inconsistent court orders issued by the district and circuit courts.

It is now time for you, as President, and officials in the judicial branch of government, to remove the confusion in the application of the Civil Rights Act. I believe the people of the South are more than willing to abide by a neighborhood concept without any discrimination whatsoever with regard to race, color or creed.

Mr. President, I yield the floor.

EXHIBIT 1

STATE OF GEORGIA,
DEPARTMENT OF EDUCATION,
Atlanta, Ga., September 21, 1971.

Hon. DAVID GAMBRELL,
U.S. Senator,
Old Senate Office Building,
Washington, D.C.

DEAR SENATOR GAMBRELL: The State Board of Education has instructed me to provide you with a copy of the attached resolution and letter transmitting it to the President of the United States.

I sincerely solicit your support in the implementation of the position expressed in this document by the State Board of Education.

With warm personal regards, I am

Sincerely,

JACK P. NIX,
State Superintendent of Schools.

Enclosures.

STATE OF GEORGIA,
DEPARTMENT OF EDUCATION,
Atlanta, Ga., September 21, 1971.

Hon. RICHARD M. NIXON,
The President of the United States,
The White House,
Washington, D.C.

DEAR PRESIDENT NIXON: After careful and sincere deliberations, the Georgia State Board of Education adopted a position statement relative to the bussing of children as a means of integrating public schools. On behalf of the State Board of Education, a copy of this resolution is being transmitted to you with the request that you, as President of the United States, carefully consider the contents of this document.

As State Superintendent of Schools for the State of Georgia and Executive Officer of the State Board of Education, I can assure you that we have expended our energies unnecessarily in recent years in administering inconsistent rules and regulations from federal officials, as well as inconsistent court orders issued by the district and circuit courts.

It is now time for you, as President, and officials in the judicial branch of government, to remove the confusion in the application of the Civil Rights Act. I believe the people of the South are more than willing to abide by a neighborhood school concept without any discrimination whatsoever with regard to race, color or creed.

Mr. President, the school children of this Nation represent the most important resource of these United States. Won't you please make it possible for us to provide for the educational needs of all children.

Sincerely,

JACK P. NIX,
State Superintendent of Schools.

RESOLUTION OF THE GEORGIA STATE BOARD OF EDUCATION

Whereas, the Georgia State Board of Education has the responsibility for providing leadership and direction to public education in this State, and

Whereas, this Board is committed to the honorable discharge of our duties as we understand them to be, and

Whereas, we believe:

1. That the only justification for the existence of a public school system is to provide

an academic climate conducive to scholastic achievement which in turn allows young people to function as responsible adults in a free society.

2. That, while the ability to achieve scholasically varies with the talents of each individual, nevertheless the ultimate development of these talents is drastically affected by any program that interferes with the learning process.

3. That quality education is available to most Georgians only through a strong and viable system of public education and that anything that tends to weaken this system should and must be opposed by this Board.

4. That one of the most desirable characteristics of a community school is that it engenders community and personal pride.

5. That community schools give individuals lasting roots so necessary for survival and happiness in this complex age.

6. That school children should never unnecessarily be exposed to physical danger and that such exposure is unavoidable while riding on streets and highways.

7. That no person can dispute the fact that funds for the operation of public school systems are limited and that these funds, therefore, must without fail be used to provide quality education for every person of school age in this origin and that any expenditure of these funds which does not accomplish this aim is and must be opposed by this Board.

8. That the only sensible place for any child to attend school in this State is at the school nearest his residence offering the curriculum meeting that child's needs and that any argument to contrary must yield to good judgment and common sense as applied by local boards of education.

Therefore, be it resolved:

1. That this Board totally and unequivocally rejects the concept or idea of transporting or bussing school children away from their homes to attend school, and

2. That the Executive Secretary of this Board is directed to provide a copy of this resolution to the President of the United States, the Secretary of the Department of Health, Education and Welfare, the United States Senators and the members of the United States House of Representatives representing this State, the Governor of the State of Georgia and the members of the General Assembly of the State of Georgia.

Passed and adopted by the Georgia State Board of Education in regular session in Atlanta, Georgia, this the 16th day of September, 1971.

REPRESENTATIVE RICHARD H. POFF OF VIRGINIA HIGHLY QUALIFIED TO SIT ON SUPREME COURT

Mr. TAFT. Mr. President, among a number of distinguished candidates being considered for the current Supreme Court vacancies, a man with most outstanding qualifications is Congressman RICHARD H. POFF of Virginia.

It has been my privilege and pleasure to serve and work with DICK POFF over a number of years in connection with the work in the House of Representatives on legislation relating to the field of the judiciary and constitutional problems. For a period of 2 years DICK POFF served as chairman of the House Republican Task Force on Crime, of which I was deputy chairman.

I had the great privilege of working with him on many proposals relating to very difficult problems in connection with increasing crime in this country.

In my opinion, it is indisputable that Congressman POFF is one of the finest lawyers serving the Congress at the present time and that his wealth of experience in legislative matters would give to the court a desperately needed dimension in the important field of legislative interpretation, a quality which it has unfortunately lacked.

RICHARD POFF is an outstanding candidate for the Court and I urge that the President give favorable consideration to submitting his name for this post. The Nation will be the gainer.

(Mr. GAMBRELL thereupon took the chair as Presiding Officer.)

Mr. BYRD of Virginia. Mr. President, I would like to associate myself with the remarks just made by the distinguished and able junior Senator from Ohio in regard to Representative POFF of Virginia. I appreciate the keen interest of the Senator from Ohio in this native son of the Commonwealth of Virginia. I, too, feel that RICHARD POFF has demonstrated during his career the judicial temperament which I think is so important in an appointee to the Supreme Court.

He has demonstrated that he feels that a member of this High Court should interpret our laws, and not attempt to make the laws. He is what one might call a strict constructionist in his view of the Constitution.

I feel that the sentiments expressed by the able junior Senator from Ohio are sentiments which are concurred in by the vast majority of the people of Virginia. Congressman POFF, although by political affiliation a Republican, has demonstrated that he puts the public interest ahead of partisan political considerations.

As an independent Democrat, I am in thorough agreement with the Senator from Ohio that were the President of the United States to nominate Congressman RICHARD POFF for a position on the Supreme Court, the President would be choosing a man whose record indicates that he has the judicial temperment, the legal attainments, and judicial restraint that would cause him to render effective and distinguished service as a member of the Nation's highest Court.

The PRESIDING OFFICER. Is there further morning business?

NEVER LET THE PRESIDENT CRAWL

Mr. GOLDWATER. Mr. President, the statement that the Senator from Massachusetts (Mr. KENNEDY) made to the relatives and friends of America's prisoners of war on Tuesday to the effect that "if necessary, he would have crawled into the room" to convince the North Vietnamese and Vietcong to release our prisoners is disgusting. It is tragedy enough for the wives, families, and friends of our brave servicemen imprisoned in Southeast Asia to endure the hardship and despair of separation, without being exhorted to demand that the President of the United States crawl to the Communist enemy to seek their release. The Senator's comment is an insult and a disgrace.

Our POW's have done their duty for their country and are presently held captive by the most barbaric, inflexible, and vicious enemy the United States has ever dealt with. This Nation, as well as countless of our friends around the world, has done everything reasonably possible to secure the release of our servicemen. We have done everything possible to secure access for the International Red Cross to inspect their prison camps. We have done everything possible to seek a transfer of our prisoners to a neutral third country for internment until hostilities cease. In President Nixon's own words—

> We are checking every possible lead, and are running out every indication that the POW's might be released.

It is a "special Presidential priority."

A new low in the politics of opportunism has been reached by Senator KENNEDY in seeking to exploit the misfortune of the POW's and their families for a newspaper headline. He deserved the negative reaction he received from his audience and in my estimation owes them and the American people an apology. The Senator underscored his ignorance of the entire issue when he responded to the question, "What would you do about the MIA's" by asking the meaning of "MIA."

No President of the United States has ever gone crawling to the enemy for any reason, and I am absolutely certain that our POW's, despite their misery, would never approve of it. I am certain that the 45,000 American servicemen who have given their lives in Southeast Asia would never approve either—nor would their families or the American people. The history of this Nation has been a proud one and will continue to be worthy of our forefathers notwithstanding the mindless exhortations of supposed leaders like Senator KENNEDY. The day the President of our great Nation has to crawl to a savage enemy like the Vietcong or the North Vietnamese, or to anyone else for that matter, will be the day that America ceases to be the great Nation that she is.

I call upon Senator KENNEDY to retract his statement and to tender an apology to the families and friends of the POW's and to the American people. If he wishes to level criticism for the plight of the POW's and, in fact, for the hundreds of thousands who have been wounded and killed in Southeast Asia, then I suggest that he direct it at the two previous administrations which escalated the war and the violence, and sent these brave men off to their fate. He should remember who sent our men there and more importantly, who is bringing them home.

And to the many thousands of Americans who have relatives or friends interned somewhere in Southeast Asia, I say that the President is doing all he can to secure the release of the prisoners. I can assure you that he would never "crawl to the enemy" as Senator KENNEDY suggests. He would not because the POW's would not want him to, and because he is convinced that would never get our men home.

President Nixon meant what he says when he told his audience that he would never let them down. I have faith in that pledge and judging by the reactions he received, the families of the POW's do too.

ORDER FOR RECOGNITION OF SENATOR TUNNEY TOMORROW

Mr. BYRD of West Virginia. Mr. President, I ask unanimous consent that tomorrow, following the remarks by the distinguished Senator from Oklahoma (Mr. HARRIS), concerning which an order has already been entered, the distinguished Senator from California (Mr. TUNNEY) be recognized for not to exceed 15 minutes.

The PRESIDING OFFICER. Without objection, it is so ordered.

ORDER FOR RECOGNITION OF SENATOR CHILES ON THURSDAY, OCTOBER 7

Mr. BYRD of West Virginia. I ask unanimous consent that on Thursday of next week, October 7, immediately following the recognition of the two leaders under the standing order, the distinguished Senator from Florida (Mr. CHILES) be recognized for not to exceed 15 minutes.

The PRESIDING OFFICER. Without objection, it is so ordered.

COMMUNICATIONS FROM EXECUTIVE DEPARTMENTS, ETC.

The ACTING PRESIDENT pro tempore (Mr. HOLLINGS) laid before the Senate the following letters, which were referred as indicated:

REPORT OF NATIONAL AERONAUTICS AND SPACE ADMINISTRATION

A letter from the Administrator, National Aeronautics and Space Administration, transmitting, pursuant to law, a report on grants vesting title to equipment, for the fiscal year 1971 (with an accompanying report); to the Committee on Aeronautical and Space Sciences.

REPORT OF AD HOC STUDY GROUP ON GOVERNMENT USAGE OF SOFTWARE PRODUCTS

A letter from the President, Association of Independent Software Cos., McLean, Va., transmitting, for the information of the Senate, a report of an ad hoc Study Group on Government Usage of Software Products, dated September 1971 (with an accompanying report); to the Committee on Government Operations.

PETITIONS

Petitions were laid before the Senate and referred as indicated:

By the ACTING PRESIDENT pro tempore (Mr. HOLLINGS):

A resolution adopted by the executive board, California Lathing & Plastering Contractors Association, Inc., Los Angeles, Calif., relating to basic research in building regulations; to the Committee on Commerce.

REPORTS OF COMMITTEES

The following reports of committees were submitted:

By Mr. TALMADGE, from the Committee on Agriculture and Forestry, with an amendment:

S.J. Res. 157. Joint resolution to assure that every schoolchild will receive a free or reduced price lunch as required by section 9 of the National School Lunch Act (Rept. No. 92-382).

SUGAR ACT AMENDMENTS OF 1971—CONFERENCE REPORT (S. REPT. NO. 92-381)

Mr. LONG, from the committee of conference on the disagreeing votes of the two Houses on the amendment of the Senate to the bill (H.R. 8866) to amend and extend the provisions of the Sugar Act of 1948, as amended, and for other purposes, submitted a report, which was ordered to be printed.

EXECUTIVE REPORTS OF COMMITTEES

As in executive session,

The following favorable reports of nominations were submitted:

By Mr. MAGNUSON, from the Committee on Commerce:

John W. Ingram, of Illinois, to be Administrator of the Federal Railroad Administration; and

Clarence Morse, of California, to be a Federal Maritime Commissioner.

By Mr. WILLIAMS, from the Committee on Labor and Public Welfare:

Raymond Telles, of Texas, to be a member of the Equal Employment Opportunity Commission;

Andrew A. Aines, of Virginia, and Catherine D. Scott, of the District of Columbia, to the members of the National Commission on Libraries and Information Science; and

J. Stanley Marshall, of Florida, Susan N. Crawford, of Illinois, Bernice M. Hetzner, of Nebraska, and Angelo M. May, of California, to be members of the Board of Regents, National Library of Medicine, Public Health Service.

Mr. WILLIAMS. Mr. President, as in executive session, I also report favorably sundry nominations in the Public Health Service which have previously appeared in the CONGRESSIONAL RECORD and, to save the expense of printing them on the Executive Calendar, I ask unanimous consent that they lie on the Secretary's desk for the information of Senators.

The PRESIDING OFFICER (Mr. BROCK). Without objection, it is so ordered.

The nominations, ordered to lie on the desk, are as follows:

Gordon Allen, and sundry other candidates, for personnel action in the Public Health Service.

INTRODUCTION OF BILLS AND JOINT RESOLUTIONS

The following bills and joint resolutions were introduced, read the first time and, by unanimous consent, the second time, and referred as indicated:

By Mr. TAFT (for himself, Mr. NELSON, Mr. SAXBE, Mr. SCOTT, and Mr. SCHWEIKER):

S. 2602. A bill to provide for the certification of certain historic barns and to provide a tax credit for the costs of maintaining the exterior appearance and structural soundness of such barns. Referred to the Committee on Finance.

By Mr. BURDICK (for himself and Mr. STEVENS) (by request):

S. 2603. A bill to amend the Act entitled "An Act to provide for the rehabilitation of Guam, and for other purposes", approved November 4, 1963. Referred to the Committee on Interior and Insular Affairs.

By Mr. HUMPHREY:

S. 2604. A bill to improve the operation of the Government by providing for reports by the President with respect to any appropriated funds which are impounded. Referred to the Committee on Government Operations.

By Mr. KENNEDY:

S. 2605. A bill to authorize the Secretary of the Interior to conduct a study with respect to certain islands in the State of Massachusetts to determine whether such islands should be made a part of the Cape Cod National Seashore. Referred to the Committee on Interior and Insular Affairs.

By Mr. MAGNUSON (by request):

S. 2606. A bill to amend the Federal Aviation Act of 1958 so as to clarify the powers of the Civil Aeronautics Board in respect of consolidation of certain proceedings. Referred to the Committee on Commerce.

By Mr. MAGNUSON (by request):

S. 2607. A bill to amend the Federal Aviation Act of 1958, as amended, to clarify Federal jurisdiction and preemption for Federal economic regulation wherever, through Federal certification, any particular market has been brought within the ambit of the national air transportation system. Referred to the Committee on Commerce.

S. 2608. A bill to amend the Federal Aviation Act of 1958 so as to authorize the Civil Aeronautics Board to regulate the depreciation accounting of air carriers. Referred to the Committee on Commerce.

By Mr. MAGNUSON (by request):

S. 2609. A bill to amend the Federal Aviation Act of 1958 so as to assure opportunity for the Board's participation and representation in certain court proceedings through its own counsel as a matter of right and to provide for all review of Board actions in the Courts of Appeals. Referred to the Committee on Commerce.

By Mr. MAGNUSON (by request):

S. 2610. A bill to amend the Federal Aviation Act of 1958 so as to specifically provide that remedial orders issued by the Civil Aeronautics Board in enforcement proceedings may require the repayment of charges in excess of those in lawfully filed tariffs. Referred to the Committee on Commerce.

By Mr. MAGNUSON (by request):

S. 2611. A bill to amend the Act of March 3, 1901 (31 Stat. 1449), as amended, to make improvements in fiscal and administrative practices for more effective conduct of certain functions of the National Bureau of Standards. Referred to the Committee on Commerce.

By Mr. RANDOLPH (for himself and Mr. JACKSON):

S. 2612. A bill to establish policy and principles for planning the use of the water and related land resources of the United States. Referred to the Committee on Interior and Insular Affairs.

By Mr. RANDOLPH, from the Committee on Public Works:

S. 2613. An original bill to extend the Federal Water Pollution Control Act, as amended, for one month. Considered and passed.

STATEMENTS ON INTRODUCED BILLS AND JOINT RESOLUTIONS

By Mr. TAFT (for himself, Mr. NELSON, Mr. SAXBE, and Mr. SCOTT and Mr. SCHWEIKER):

S. 2602. A bill to provide for the certification of certain historic barns and to provide a tax credit for the costs of maintaining the exterior appearance and structural soundness of such barns. Referred to the Committee on Finance.

Mr. TAFT. Mr. President, for years our conservation efforts have been largely directed toward the preservation of the

wilderness. As important as these efforts are, I think we must recognize the need to preserve some of the artistic, historical, and architecturally unique buildings which have graced our Nation's landscape and have become so much a part of the great heritage of this country. I think that this is particularly true with some of our Nation's barns.

As the suburban sprawl of hot dog stands, used car lots, and gasoline stations devours our countryside, the rural charm of this country is being gradually destroyed.

To an equal degree economic forces weigh in favor of replacing old, artistic barns with new structures which give up much of the beauty of America's past.

The beauty of these barns is nowhere more apparent than in the Amish sections of Ohio, Pennsylvania, Indiana, and Wisconsin. Much of the beauty and the great joy of New England lies in the barns which grace that landscape. These barns were created in an era when people took great pride in their work. They are a great part of our Nation's heritage and should not be allowed to pass from the American scene.

To replace an old, artistic barn with a corrugated metal building is just as much a destruction of our environmental beauty as a pizza stand in Glacier National Park.

Today I am introducing for appropriate reference, a bill to authorize the Secretary of the Interior to certify barns 40 years of age or older which he determines are of historic, architectural, or artistic significance because of their location, construction, or exterior appearance. This bill provides that as to barns so certified, the owners will be allowed a 10-percent tax credit for funds expended in maintaining their exterior appearance and structural soundness.

I am pleased that the following Senators join in cosponsoring this measure: Senator NELSON, Senator SAXBE, and Senator SCOTT.

The beauty of the American countryside must be preserved. It would be a mistake to think this can all be done within the context of our wilderness programs. In my judgment we must act now to see that the grace, charm, and artistic talent which these barns represent are preserved as a part of our American heritage.

By Mr. BURDICK (for himself and Mr. STEVENS) (by request):

S. 2603. A bill to amend the act entitled "An Act to provide for the rehabilitation of Guam, and for other purposes," approved November 4, 1963. Referred to the Committee on Interior and Insular Affairs.

Mr. BURDICK. Mr. President, for myself and the senior Senator from Alaska (Mr. STEVENS), by request, I send to the desk a bill to amend Public Law 88–170, as amended, which authorized a rehabilitation program for the Territory of Guam.

In 1962, Guam was struck by devastating typhoons which inflicted extensive property damage upon the military, civilian, and governmental sectors of the Guam community. The destruction brought about by Typhoon Karen, as well as the aftereffects of hostilities on Guam during World War II, made it imperative that Federal assistance be made available to the citizens of the territory. By the enactment of Public Law 88–170, Congress authorized a loan and grant fund of $45 million for the construction of sanitation facilities, water, power, and other essential services on Guam. In 1968, Congress extended the rehabilitation program by increasing the funds to a ceiling of $75 million and extended the repayment to a period of 30 years from the time funds were made available to the local government. Only $6.3 million remains available to Guam of the total $75 million authorized, and these funds will be exhausted in fiscal year 1973. However, the reconstruction will not be completed. Only 12 of the 19 villages presently have water and sewer facilities. There is a desperate need for additional classrooms in Guam's school system, for increased airport facilities, and urban renewal programs.

I might add, Mr. President, that I was in Guam for several days in May 1971, and I had an opportunity to see many facilities constructed there with Federal funds already made available, and I can attest to the fact that the money has been put to wise use.

By letter of September 10, 1971, the Honorable Carlos Camacho, Governor of Guam, has requested that I introduce legislation increasing the ceiling of the Guam rehabilitation program from a level of $75 million to $120 million. This matter has been discussed with me by Guam's elected representative in Washington, Antonio Won Pat. Pursuant to this request, I am introducing this legislation today, along with my colleague on the Territories Subcommittee, Senator STEVENS. It is my intent, upon receipt of appropriate departmental reports, to hold hearings on the measure, at which time Governor Camacho and officials from Guam will be afforded an opportunity to appear and give our subcommittee a full report on all expenditures of moneys that have been made available to Guam to date, together with a comprehensive plan and program for the use of the additional $45 million they are seeking.

Mr. President, I ask unanimous consent to have printed in the RECORD Governor Camacho's letter of September 10, which sets forth in some detail the need for increased rehabilitation funds.

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

TERRITORY OF GUAM,
OFFICES OF THE GOVERNOR,
Agana, Guam, September 10, 1971.

Hon. QUENTIN N. BURDICK,
Senate Office Building,
Washington, D.C.

DEAR SENATOR BURDICK: This is in reference to Guam's need for an extension of the Rehabilitation Act funds under Public Law 88–170, as amended by Public Law 90–511—for which we are seeking your assistance.

As you may recall, the U.S. Congress in 1963 enacted Public Law 88–170 authorizing an appropriation of $45 million for the rehabilitation of Guam following Typhoon Karen which had destroyed 90 percent of Guam's public facilities. By 1968, these funds were almost exhausted, yet it was apparent that the objectives of the law were only partly accomplished, and that an extension of funding was necessary to enable Guam to continue her reconstruction efforts. Thus, in September 1968, amending legislation (Public Law 90–511) sponsored by yourself, and Senators Moss and Metcalf of the Interior Committee, was enacted authorizing an additional appropriation of $30 million, bringing the total authorized for reconstruction purposes up to $75 million.

Of the $75 million authorized or appropriated to date, 46% has been appropriated or earmarked for the construction of schools; 27% for the implementation of the water, sewerage and power systems; 19% for the construction of the Commercial Port, the Air Terminal and industrial parks; and 8% for village improvements.

As of this date, $6.3 million is all that remains of unappropriated funds for rehabilitation purposes for Fiscal Year 1973, whereas our rehabilitation projects for 1973 alone will require an investment of $10 million. If projects initiated with Rehabilitation Act funds are to be completed, an additional sum of $45 million in federal funds will be required during the planning period 1973–1977 which the Territory is unable to raise.

The overall Government of Guam capital improvements needs for the period 1973–1977 amount to $311 million (including $10.4 million for repayment of the Rehabilitation Act loans), as compared to total anticipated revenues for capital improvements of only $37.5 million. Taking into account the availability of income from self-financing projects and federal grant-in-aid programs which could total approximately $134.7 million, the Government of Guam is left with $37.5 million to meet capital improvements needs of $176.3 million.

The additional $45 million now requested under the terms of the Rehabilitation Act will be necessary to continue the construction of the sewerage system, the water system, public schools, village improvements and the expansion of the Guam International Air Terminal—all of which items were included in the original list of fifty construction projects to be financed with Rehabilitation Act funds.

As of this date, only 12 of the island's 19 villages have adequate sewerage systems, whereas Guam's Comprehensive Wastewater Plan was designed to provide an integrated sewerage system covering the entire island in a series of scheduled increments. Rehabilitation Act loans are now needed for seven more villages to match funds available for sewer construction under Title VII of the Housing and Urban Development Act of 1965 (HUD), since Guam herself is unable to raise the necessary amount.

The construction of Guam's water system also follows a carefully scheduled plan for each village, and, like the wastewater system, is dependent upon Rehabilitation Act loan funds to match funds available under the HUD program. The total cost of the village sewerage and water systems alone amounts to $38 million.

The cost of school construction is a continuing burden to the Government of Guam which must provide facilities for a rapidly growing local population as well as for the children of military dependents and civil service contract employees. The cost of constructing the necessary number of classrooms based upon predicted student enrollment for the period 1973–1977 will amount to $56.5 million, of which $23.2 million is sought in Rehabilitation Act funds.

Of the seven villages known to be in urgent need of urban renewal, only two have been funded to date for extensive reconstruction. Over 70 percent of the houses in the remain-

ing five villages are reported to be in substandard condition. Thus Guam must raise $6 million during the next five years to match available HUD funds for village improvements, which are estimated to cost a total $26 million.

Daily flights of the 747's, the growing demands of businessmen, tourists and visitors, additional carriers utilizing the Guam International Air Terminal, and the increased utilization of air freight as a means to import goods to Guam, require the extensive expansion of existing airport facilities at an estimated cost of $32 million during the next five years. Guam will need to draw upon approximately $2 million from Rehabilitation Act funds to enable her to raise the required amount.

The territory's inability to raise sufficient funds for the above projects is due to the fact that the economy is developing at the extraordinary rate of from 15% to 20% per annum—as compared to a normal healthy growth rate of from 5% to 10% per annum for most developing areas. As this implies, the demand upon public revenues for the expansion of the island's infrastructure is heading towards a peak during the next five to ten years. After this period, the rate of economic growth should level off and decline. This in turn should alleviate the abnormal drain upon public funds and place Guam in a favorable position to help herself and independently raise capital for further construction.

An infusion of capital into Guam's infrastructure at this critical time would raise the island's economy to the level where it will attain a large measure of stability and independence. This, we believe, is the desire of the U.S. Congress—that Guam will ultimately wean herself of heavy financial dependence upon the U.S. Treasury. A final infusion of $45 million into her public facilities under the terms of the Rehabilitation Act should definitely help to achieve that goal.

It should be mentioned that with the growth of the economy, since 1967 the per capita income on Guam has increased from $1,939 to $2,495. The increase in goods and services now available to the community has made possible a standard of living taken for granted by most American communities. With the continued growth of the economy, it is anticipated that per capita income by 1977 will have increased to $4,532, and that the average Guam resident will, for the first time, enjoy all the amenities and comforts of a standard American home.

In order to enable Guam to realize her many potentials, I am once again turning to you for assistance, and requesting you to introduce an amendment to the Rehabilitation Act. Knowing the deep interest that you have taken in the progress of this island over a number of years, I am convinced that the combination of your knowledge of our problems and your sincerity could successfully persuade the U.S. Senate to consider a final amendment to the Rehabilitation Act favorably. For your information, I am also calling upon the assistance of Congressman Phillip Burton to sponsor the bill through the House.

The amending legislation which I am requesting you to submit on Guam's behalf would raise the ceiling on Rehabilitation Act funds from $75 million to $120 million—which equals an addition of $45 million and encompasses a five-year planning period (1973–1977). You might wish to emphasize in your justification for this amendment that of the $75 million already authorized for Guam, no less than $43 million is to be repaid at prevailing interest rates over a period of 30 years from the date of appropriation; that to date a total of $4,066,792.21 has already been repaid, of which $938,625.25 represents principal, and $3,128,165.96 interest. Of the $45 million additionally requested, it is anticipated that approximately $30 million will also constitute loans.

My office would be happy to furnish you with any additional data or reports you may require to support and justify the introduction of an amendment to the Rehabilitation Act. I, myself, our Washington Representative, Mr. Antonio B. Won Pat, and Senators Leonardo S. N. Paulino, Chairman of the Committee on Finance & Taxation, Joaquin A. Perez, Chairman of the Committee on Rules, and Pedro D. Perez, Member of the Minority Group, of the Eleventh Guam Legislature, who have been involved in the formulation of our request for an extension of funds, will stand by in readiness to appear and testify before the Committee on Interior and Insular Affairs, and any other appropriate body requiring testimony. Meanwhile, my gratitude for your assistance and cooperation.

Sincerely yours,

CARLOS G. CAMACHO.

By Mr. HUMPHREY:

S. 2604. A bill to improve the operation of the Government by providing for reports by the President with respect to any appropriated funds which are impounded. Referred to the Committee on Government Operations.

THE FEDERAL IMPOUNDMENT INFORMATION ACT

Mr. HUMPHREY. Mr. President, the Nixon administration has frozen more than $10 billion in congressionally approved funds which are badly needed to help millions of Americans. The President has taken this action without informing the public or the Congress. His administration has not disclosed the extent of the freeze or told Congress exactly what programs have been frozen.

Mr. President, I am today introducing the Federal Impoundment Information Act. This legislation is critically needed in order to correct a fundamental flaw in the system of separation of powers between the legislative and excutive branches of government.

This legislation is not primarily directed to the issue of whether or not the President has the constitutional right to impound funds. My distinguished colleague from North Carolina (Senator ERVIN) has been very concerned with this issue and has been doing an excellent job examining the complex constitutional questions involved. Both Senator ERVIN and I have been working on legislation in this important area. I was pleased to see that he introduced an impoundment procedures act which limits the power of the President to impound funds for more than 60 days without congressional approval.

The issue which this bill reaches is whether the President should be permitted to not spend funds appropriated by the Congress without full and timely disclosure to the Congress and to the public.

Today, neither the public—whose money is being impounded—nor the Congress—who originally approved these expenditures—are informed when the President decides to use the impoundment device.

I was shocked to learn that the Office of Management and Budget has not even informed the Senate and House Appropriations Committees of how much currently has been impounded and in which programs. It seems to me that if any Member or committee of Congress should have an accurate tabulation of what I understand to be more than $10 billion of frozen funds, it would be these committees.

How can the Congress appropriate funds responsibly without having the full details of the administration's impoundment actions?

In connection with the legislation I am introducing today, my staff and I have been attempting to obtain from OMB the current level of impoundments as well as an up-to-date list of frozen funds by agency and account. As of today, the Director, the Deputy Director, and the congressional liaison officer of the Office of Management and Budget have not complied with what I consider to be a most legitimate request.

My efforts to obtain this information started a week ago on September 22. On September 24, I sent a telegram to George Shultz asking his personal assistance in this matter.

I ask unanimous consent that my telegram to the Director of the OMB be printed in the RECORD.

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

Hon. GEORGE P. SHULTZ,
Office of Management and Budget,
Executive Office Building,
Washington, D.C.:

On September 22, at my direction, my staff requested that OMB furnish me with the current level of funds impounded by the President as well as an updated list of impounded funds by agency and account.

I need this information for legislation which I plan to introduce on September 28 concerning the entire impoundment process.

Neither the Office of your Deputy Director nor your legislative liaison officer have been able to comply with my legitimate request, despite my numerous inquiries.

I would appreciate your personal assistance in seeing that this information is promptly supplied to one.

HUBERT H. HUMPHREY,
U.S. Senate.

Mr. HUMPHREY. Mr. President, I have received no answer to the telegram.

Mr. President, I believe that the more than $10 billion now being frozen by the Nixon administration attests to a shameful record of neglect of the urgent needs of this Nation.

These frozen funds could mean new jobs in communities where unemployment is at record levels, desperately needed new housing, modern schools, and sewage facilities for towns where they are now inadequate.

The multibillion-dollar freeze still in effect means that millions of Americans are not receiving from the Federal Government what their elected officials duly appropriated after careful consideration in the normal legislative process.

The legislation I am offering would require the President to notify promptly the Congress and the Comptroller General of the United States when appropriated funds are partially or completely impounded. In his notification report the President would be required to include the following: First, the amount impounded; second, the date on which the

funds were ordered to be impounded; third, the date the funds were impounded; fourth, any department or establishment of the Government to which the impounded funds woud have been available for obligation except for such impoundment; fifth, the period of time during which the funds are to be impounded; sixth, the reasons for the impoundment; seventh, to the maximum extent practicable, the estimated fiscal, economic, and budgetary effect of the impoundment.

Mr. President, too often we forget that when appropriated funds are impounded by the executive branch, millions of people are affected, the plans of many States and cities have to be quickly changed and the economies of many areas disrupted.

All of us in Congress have a right to know immediately when the President impounds money—whether the funds were for a special milk program for schoolchildren or the construction of low-rent public housing.

It is true that the Office of Management and Budget sends a quarterly report of impounded funds to the House Appropriation Committee or supplies such a report to a member of that committee upon request. But this is not sufficient. Information supplied to one congressional committee every 3 months is not often enough.

Why should not all Members of the Congress have this information immediately when the President takes this action?

Why should not the public know about these frozen funds?

Why must they learn about them when the impact of the President's action finally reaches their community or neighborhood?

Mr. President, the relationship between the Congress and the President is a delicate one. I believe that the balance between the two branches is dangerously biased in favor of the Executive when there is no statutory provision for congressional and public notification when funds are impounded by the President.

This is why I have authorized the legislation I am introducing today. I am not willing to accept the fact that I must learn by reading the newspapers that programs which have moved through the various stages of the legislative process and which have been funded by the Congress cannot be implemented, because the funds have been frozen for an indefinite period.

Mr. President, I believe that any President might more carefully consider his action on freezing funds if he knew that his decision would be known immediately by the Congress and by the American people.

Mr. President, I am speaking of Executive accountability. No President has the right to hide important decisions affecting millions of people behind a bureaucratic curtain. There is a public need to know and a right to know. The time has arrived when Congress must act to redress an imbalance and to open for public view a system that has been hidden far too long.

I ask unanimous consent that the Federal Impoundment Information Act be printed at this point in the RECORD.

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

S. 2604

A bill to improve the operation of the Government by providing for reports by the President with respect to any appropriated funds which are impounded

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled, That this Act may be cited as the "Federal Impoundment Information Act".

SEC. 2. Title II of the Budget and Accounting Procedures Act of 1950 is amended by adding at the end thereof the following new section:

"REPORTS ON IMPOUNDED FUNDS

"SEC. 203. (a) If any funds are appropriated and then partially or completely impounded, the President shall promptly transmit to the Congress and to the Comptroller General of the United States a report containing the following information:

"(1) the amount of the funds impounded;

"(2) the date on which the funds were ordered to be impounded;

"(3) the date the funds were impounded;

"(4) any department or establishment of the Government to which such impounded funds would have been available for obligation except for such impoundment;

"(5) the period of time during which the funds are to be impounded;

"(6) the reasons for the impoundment; and

"(7) to the maximum extent practicable, the estimated fiscal, economic, and budgetary effect of the impoundment.

"(b) If any information contained in a report transmitted under subsection (a) is subsequently revised, the President shall promptly transmit to the Congress and the Comptroller General a supplementary report stating and explaining each such revision.

"(c) Any report or supplementary report transmitted under this section shall be printed in the first issue of the Federal Register published after that report or supplementary report is so transmitted."

By Mr. KENNEDY:

S. 2605. A bill to authorize the Secretary of the Interior to conduct a study with respect to certain islands in the State of Massachusetts to determine whether such islands should be made a part of the Cape Cod National Seashore. Referred to the Committee on Interior and Insular Affairs.

Mr. KENNEDY. Mr. President, I am introducing today legislation to provide for a study of the possible extension of the Cape Cod National Seashore to include Nantucket Island, Tuckernuck Island, Muskeget Island, Martha's Vineyard Island, No Man's Land, the Elizabeth Islands, the Monomoy Island. We are all of us familiar with the success of the landmark legislation, the Cape Cod National Seashore signed into law by President Kennedy on August 7, 1961.

But time has passed and the very success of that legislation has pointed out the urgent lack of similar legislation for the islands. It seems most appropriate to conduct a study at this time to see if this very workable and successful solution should be extended to include the several islands lying off the cape.

Prior to the passage of the Cape Cod National Seashore legislation, Federal participation in conservation, preservation, or recreational development was limited to federally owned lands. By the 1950's, it was clear that if some of the most beautiful and historic areas were to be saved from rampant overdevelopment, from misuse or overuse, from lack of planning of uncoordinated planning, then the Federal Government must involve itself in preserving privately owned lands. The act establishing the Cape Cod National Seashore provided for acquisition of 27,650 acres of land with an appropriation of $16 million.

In order to protect landowner rights and at the same time assure preservation of the very best of our scenic resources, a very delicate formula was worked out to everyone's benefit. The Federal Government did not step in to take over homes and villages; families were not shuffled around; no one was forced to sell their property for less than it was worth.

Cooperation between the Federal Government, the local municipalities, and the very active participation by citizen groups assured that zoning regulation, scenic easement, limited condemnation rights were implemented with a minimum infringement on residential rights and maximum consideration for their concerns.

Only last year additional funds were appropriated by the Congress to facilitate the acquisition of additional available lands for incorporation into the seashore. An additional 7,500 acres enabled us to move forward with final planning for the Cape Cod National Seashore, plans for improved transportation and recreational facilities and new programs for the off season.

The success of the Cape Code National Seashore legislation can be measured by the status of that immeasurably beautiful spot today. Almost without exception everyone is pleased with the result—those who live on Cape Cod and those who visit the cape during the summer months—those most interested in commercial development and those concerned with preservation of the land. We have struck a delicate balance which has worked uncommonly well.

Over 3 million people visit Cape Cod National Seashore each summer and of these visitors most do not leave Cape Cod without visiting one or more of the outlying islands. It is to these islands that we direct our concern today.

The islands off Cape Cod which hold the greatest potential for growth and development are of course those large islands which are the most beautiful and prized aesthetically. And many of these are beginning to show the face of disastrous lack of planning, commercial overdevelopment, and sometimes cynical lack of forsight. The legislation I am introducing today would provide for a study of Nantucket Island, Tuckernuck Island, Muskeget Island, Martha's Vineyard Island, No Man's Land, the Elizabeth Islands, and Monomoy Island with the result that we have a plan for the islands' future.

While the 1970 Department of Interior study indicates that for the most part development on Martha's Vineyard and Nantucket "has been tasteful, retaining the islands' essential character," only a

week ago an article in the New York Times by Anne Simon suggests that the balance "is suddenly errupting." Mrs. Simon states that a comprehensive study which has been completed states that Martha's Vinyard will have contracted environmental terminal cancer by 1975. The mail that I receive indicates that there has been some sudden and not wholly tasteful commercial development in recent months. Martha's Vineyard totaling 63,000 acres and Nantucket Island—30,341 acres—are the largest islands in the group and carry the greater potential for either overdevelopment or programed recreation.

The Elizabeth Islands include seven large and at least 12 small pieces of land totaling 8,268 acres separating Buzzards Bay from Vineyard Sound. All but two of these islands are administered under several trusts which protect their natural environment—cars are barred except for service vehicles and riding and hiking are the pleasures as well as the means of transportation. These islands should provide some valuable insight into what can be accomplished with controlled development.

In August 1970, the Department of the Interior indicated that the Elizabeth Islands, Martha's Vineyard Island, and Nantucket Island should be put under study to determine if a national seashore trust or "other protective status" would be in the best interests of the citizens who live there. An island trust would be administered by a commission with Federal, State, and local representatives. This group would be responsible for planning and development in the interest of protecting the islands.

My legislation today calls for a study to determine if the best method of protection lies in an extension of the Cape Cod National Seashore. It is my hope that in the 6 months of study a definitive resolution can be made—that we will know if the island trust, or extention of the seashore, a combination of both, or some other form of controlled development is the best way to accomplish what we all desire.

All of the proposals have their vigorous proponents and each proposal has tremendous merit. I would hope that immediate action on this bill would elicit massive citizen comment. The citizens and representatives of this area are most anxious for a judgment from the Department of the Interior as to which method appears to hold the best hope for the islands' future.

And I hope that during the 6 months of study, citizen participation will be active and extensive in making known the feeling and desires of the island people. Surely no one knows better what needs to be done or has better suggestions on how to do it than the concerned citizens themselves. We have learned in another area of the Commonwealth of Massachusetts what citizen participation in planning can accomplish—the Mount Holyoke unit of the Connecticut historic riverway. Those residents have spent a great deal in time and effort in meeting, discussing, planning, and making certain that their representatives knew their wishes. The result is a landmark piece of legislation which has had citizen participation at every level, at every step along the way. It is most clearly their legislation embodying their hopes.

During these 6 months we will try to obtain all the data that has been gathered recently which illustrates either the extent of the problem or possible solutions. This information should be disseminated to the residents and citizen groups who wish to participate in the study process.

A Senate Interior Committee report on Cape Cod in 1961 reported the following:

> But more important was the development of a new industry, a service-based economy generated by the needs of entertaining summer visitors. This industry, which received its impetus from the scenery of the Cape, its climate, white sandy beaches, the tranquil isolation from busy industrial centers, and the quaint atmosphere of villages long associated with seafaring and seaside life, grew rapidly. It is continuing to grow today, but in many instances at the expense of the Cape's natural assets. The open spaces sought by the fatigued city dweller for mental relaxation are being converted into new accommodations, while restaurants are replacing wharves, and barns are becoming gift shops.

That same kind of process is underway today. But there is a difference this time—we do not have years to study the problem, we have months—and we do not have years to reverse the trend, we have months. So let us not waste this precious time.

We have long ago accepted the notion that recreation and scenic beauty are not reserved for the wilderness and the country. We appreciate that scenery can be both convenient and beautiful. We know that those who need the solace and peace and pleasure of our natural beauty most are the city dwellers, those crowded into the urban population centers. Thirty million people live within a 1-day drive of Cape Code and the islands. Unfortunately, it is that which is closest to us that we sometimes fail to see in our endeavor to preserve and protect. But while time and pace have taken their toll on the islands, the residents have been alert to the horrendous possibilities for the future.

How often do we think of our land and water, our seashores and islands as fragile things—but we are fast learning a disastrous lesson. These things are precious and fragile and within our power to make enduring.

Mr. President, I ask unanimous consent that at the conclusion of my remarks the text of this bill be printed in the RECORD.

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

S. 2605

A bill to authorize the Secretary of the Interior to conduct a study with respect to certain islands in the State of Massachusetts to determine whether such islands should be made a part of the Cape Cod National Seashore

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled, That (a) the Secretary of the Interior is authorized to conduct an investigation and study with a view to determining whether any or all (or any part thereof) of the following islands should be made a part of the Cape Cod National Seashore:

(1) Nantucket Island;
(2) Tuckernuck Island;
(3) Muskeget Island;
(4) Martha's Vinyard Island;
(5) No Man's Land;
(6) The Elizabeth Islands;
(7) Monomoy Island; and
(8) other appropriate outlying islands from Cape Cod, Massachusetts.

(b) On or before the expiration of the one hundred and eighty day period following the date of the enactment of this Act, the Secretary of the Interior shall report to the Congress the results of such investigation and study, together with his views and recommendations.

SEC. 2. There is authorized to be appropriated the sum of $1,500,000 to carry out the purposes of this Act.

By Mr. MAGNUSON (by request):

S. 2606. A bill to amend the Federal Aviation Act of 1958 so as to clarify the powers of the Civil Aeronautics Board in respect of consolidation of certain proceedings. Referred to the Committee on Commerce.

Mr. MAGNUSON. Mr. President, I introduce by request, for appropriate reference, a bill to amend the Federal Aviation Act of 1958 so as to clarify the powers of the Civil Aeronautics Board in respect of consolidation of certain proceedings, and ask unanimous consent that the letter of transmittal be printed in the RECORD with the text of the bill.

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

CIVIL AERONAUTICS BOARD,
Washington, D.C., September 3, 1971.

Hon. SPIRO T. AGNEW,
President of the Senate,
U.S. Senate.,
Washington, D.C.

DEAR MR. PRESIDENT: The Civil Aeronautics Board recommends to the Congress for its consideration the enclosed draft of a proposed bill "To amend the Federal Aviation Act of 1958 so as to clarify the powers of the Civil Aeronautics Board in respect of consolidation of certain proceedings."

The Board has been advised by letter from the Office of Management and Budget dated August 27, 1971, that there is no objection to the transmission of the draft bill to the Congress from the standpoint of the Administration's program.

Sincerely,

WHITNEY GILLILLAND,
Acting Chairman.

S. 2606

A bill to amend the Federal Aviation Act of 1958 so as to clarify the powers of the Civil Aeronautics Board in respect of consolidation of certain proceedings

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled, That section 401 (c) of the Federal Aviation Act of 1958 (49 U.S.C. 1371) is amended by:

(1) Amending the heading of such section to read as follows: "Notice of Application; Contemporaneous Consideration"; and

(2) Inserting "(1)" immediately after "(c)" and by adding at the end thereof the following new paragraph:

"(2) Contemporaneous consideration of applications may, in the Board's discretion, be afforded by assigning applications for consolidated hearings and decisions or by assigning such applications for separate hearings followed by simultaneous decision; *Provided,* That applicants excluded from a particular hearing are allowed to participate

therein as intervenors, adduce evidence, and cross-examine adverse witnesses: *Provided further,* That contemporaneous consideration is not required in a proceeding for the consideration of applications for a particular type of service within a defined area or over a described route segment where applications (or portions of applications) not proposing service of such type within such area or over such segment are excluded by the Board and new authorizations granted in such proceeding provide for a mandatory stop at any point marking the boundary of the defined area or common to any application (or portion thereof) which is excluded. Direction or refusal by the Board to consolidate any application for hearing with any other application, or otherwise to provide contemporaneous consideration thereof, shall not be subject to review prior to the issuance of an order granting such other application in whole or in part. The Board shall not be required to hold, prior to a hearing on any application, a preliminary hearing on the question of whether any other application filed pursuant to this section should be heard together with the application noticed for hearing, or whether such other application should otherwise be afforded contemporaneous consideration. The burden of establishing that applications should be consolidated for hearing or given contemporaneous consideration shall be on the person making request therefor. As used in this subsection, the term 'application' shall include an investigation instituted by the Board upon petition or complaint or upon its own initiative to alter, amend, modify or suspend a certificate pursuant to section 401 (g)."

SEC. 2. Section 1006(a) of the Federal Aviation Act of 1958 (49 U.S.C. 1486) is amended by adding at the end thereof a sentence reading as follows: "Orders of the Board directing or refusing consolidation or contemporaneous consideration of applications filed under section 401 of this Act shall be subject to review only at the time prescribed in section 401(a)(2) of this Act."

SEC. 3. That portion of the table of contents contained in the first section of the Federal Aviation Act of 1958 which appears under the heading "Sec. 401. Certificate of public convenience and necessity." is amended by striking out "(c) Notice of Application." and inserting in lieu thereof "(c) Notice of application; contemporaneous consideration."

STATEMENT OF PURPOSE AND NEED FOR A DRAFT BILL TO AMEND THE FEDERAL AVIATION ACT OF 1958 SO AS TO CLARIFY THE POWERS OF THE CIVIL AERONAUTICS BOARD IN RESPECT OF CONSOLIDATION OF CERTAIN PROCEEDINGS

One of the most persistent problems the Board has encountered, particularly in large area route proceedings, has been the contention of applicants at the consolidation stage, based on the doctrine of *Ashbacker Radio Corp.* v. *F.C.C.*, 326 U.S. 327 (1945), that they are entitled as a matter of legal right to consolidation of particular applications. Such an applicant usually asserts that the grant of an application which the Board proposes to hear will preclude a subsequent grant of its own application, and that the Board therefore must also hear its application in the proceeding and accord it comparative consideration. In many instances in the past, refusal by the Board to consolidate has resulted in an appeal to the courts from the consolidation order, with a request that the court stay further procedural steps in the Board proceeding pending disposition of the petition for review. The bill is designed, *inter alia,* to resolve these problems.

This matter has been the subject of consideration and recommendation by the Administrative and Judicial Conferences of the United States. In its 1962 final report (Recommendation No. 20), the Administrative Conference recommended that the Federal Aviation Act be amended. First, the Administrative Conference recommended that the Board should be allowed to give contemporaneous consideration of applications, when required, by assigning various of the applications for separate evidentiary hearings and then consolidating them for simultaneous decision by the Board. This recommendation was made subject to the condition that applicants excluded from a particular hearing should be allowed to participate therein as intervenors, adduce evidence, and cross-examine adverse witnesses. Second, the Administrative Conference recommended that when the Board considers applications for service within a defined area or over a described route segment, the Board is not required to consolidate certain applications if it provides that new service must make a mandatory stop at a point marking the boundary of the defined area or common to the excluded applications. Lastly, the Administrative Conference recommended that the Board should not be required to hold a preliminary hearing on the issue of consolidating applications. Subsequently, the Judicial Conference of the United States also endorsed the recommendation of the Administrative Conference (see Report of the Proceedings of the Judicial Conference of the United States, September 22–23, 1965 (H. Doc. No. 356, 89th Cong., 2d Sess., p. 68)).

The legislation amends section 401(c) of the Federal Aviation Act of 1958, relating to certificate proceedings, so as to reflect in substance these recommendations of the Administrative and Judicial Conferences, and makes a technical amendment to section 1006(a) of the Act, relating to judicial review of Board orders.

By Mr. MAGNUSON (by request):

S. 2607. A bill to amend the Federal Aviation Act of 1958, as amended, to clarify Federal jurisdiction and preemption for Federal economic regulation wherever, through Federal certification, any particular market has been brought within the ambit of the national air transportation system. Referred to the Committee on Commerce.

Mr. MAGNUSON. Mr. President, at the request of the Air Transport Association of America which represents the Nation's scheduled, certificated airlines, I introduce a bill by request to amend the Federal Aviation Act to clarify Federal jurisdiction over the economic regulation of air carriers operating in the national air transportation system.

The certificated, scheduled air carriers seek this revision because at the present time the U.S. Civil Aeronautics Board has no authority to regulate air carrier operations which are entirely intrastate in character, even though this intrastate air transportation may be an integral part of the national air transportation fabric.

While I do not necessarily endorse this bill, it is of interest to my committee because of the proposed further refinement of the role to be played by the U.S. Government, through the CAB, and the State governments with respect to economic regulation of air transportation.

Mr. President, I ask unanimous consent that the bill be printed in the RECORD at this point.

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

S. 2607

A bill to amend the Federal Aviation Act of 1958, as amended, to clarify Federal jurisdiction and preemption for Federal economic regulation wherever, through Federal certification, any particular market has been brought within the ambit of the national air transportation system

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled, That the Federal Aviation Act of 1958, as amended, is further amended by inserting a new section 418 as follows:

"INQUIRY INTO BURDEN ON AIR COMMERCE

"SEC. 418. The Board may upon its own initiative or upon request of any person, investigate and determine whether the engagement of any common carrier in transportation by air between two points within the same state of the United States constitutes or will consitute an undue burden on air commerce, or is otherwise inconsistent with the policy set forth in Section 102 of this Act. If the Board shall find, after notice and hearing, that such engagement constitutes or will constitute such undue burden or is otherwise inconsistent with the policy so set forth, it shall order such carrier to take such action as may be necessary, in the opinion of the Board, to prevent such effect.

By Mr. MAGNUSON (by request):

S. 2608. A bill to amend the Federal Aviation Act of 1958 so as to authorize the Civil Aeronautics Board to regulate the depreciation accounting of air carriers. Referred to the Committee on Commerce.

Mr. MAGNUSON. Mr. President, I introduce by request, for appropriate reference, a bill to amend the Federal Aviation Act of 1958 so as to authorize the Civil Aeronautics Board to regulate the depreciation accounting of air carriers, and ask unanimous consent that the letter of transmittal, statement of purpose and need be printed in the RECORD with the text of the bill.

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

S. 2608

A bill to amend the Federal Aviation Act of 1958 so as to authorize the Civil Aeronautics Board to regulate the depreciation accounting of air carriers

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled, That section 407 of the Federal Aviation Act of 1958 (49 U.S.C. 1380) is amended by redesignating subsection (e) thereof as subsection (f), and by inserting therein a new subsection (e) reading as follows:

"DEPRECIATION ACCOUNTING

"(e) The Board may prescribe for air carriers the classes of property for which depreciation charges may properly be included under operating expenses, the method of depreciation accounting, the rate or rates of depreciation which shall be charged, the depreciation period and the residual value, with respect to each of such classes of property, classifying the air carriers as it may deem proper for this purpose. The Board may, when it deems necessary, modify the classes and rates so prescribed. To the extent that the Board shall have exercised its authority under the foregoing provisions of this subsection, air carriers shall not charge to, or in any form include under, operating expenses any depreciation charges other than

those prescribed by the Board, or employ a method of depreciation, depreciation period, or residual value other than those prescribed by the Board."

CIVIL AERONAUTICS BOARD,
Washington, D.C., September 3, 1971.

Hon. SPIRO T. AGNEW,
President of the Senate, U.S. Senate, Washington, D.C.

DEAR MR. PRESIDENT: The Civil Aeronautics Board recommends to the Congress for its consideration the enclosed draft of a proposed bill "To amend the Federal Aviation Act of 1958 so as to authorize the Civil Aeronautics Board to regulate the depreciation accounting of air carriers."

The Board has been advised by letter from the Office of Management and Budget dated August 27, 1971, that there is no objection to the transmission of the draft bill to the Congress from the standpoint of the Administration's program.

Sincerely,

WHITNEY GILLILLAND,
Acting Chairman.

STATEMENT OF PURPOSE AND NEED FOR A DRAFT BILL TO AMEND THE FEDERAL AVIATION ACT OF 1958, SO AS TO AUTHORIZE THE CIVIL AERONAUTICS BOARD TO REGULATE THE DEPRECIATION ACCOUNTING OF AIR CARRIERS

In common with other regulatory acts, section 407(d) of the Federal Aviation Act directs that the Board shall prescribe a system of accounts to be kept by air carriers. However, it has been held that the Board lacks the authority (possessed by the other regulatory agencies with respect to the persons subject to their jurisdiction) to regulate the depreciation accounting of air carriers. Consequently, the legislation vests this ancillary power in the Board.

Under the authority of section 407(d) to "prescribe the forms of any and all accounts," the Board has proceeded, since its establishment, to prescribe the uniform system of accounts required to be kept by all certificated air carriers. The controlling purpose of such a uniform system of accounts is to provide the Board with financial statements which fairly reflect the financial condition of the air carrier on the one hand, and the operating results of the carrier for a given period of time on the other. The purpose of the system of accounts is to prescribe uniform practices which will provide, in general substance, comparable information in respect to each of the various carriers subject to the accounting regulations. Financial statements would, of course, be useless to the Board unless they fairly reflected the actual condition of the carriers and the actual operating results of the services performed for the period reported.

Since the enactment of the Civil Aeronautics Act in 1938, the Board has, in general, prescribed rates of depreciation as a part of its subsidy rate-making process. While air carriers continued to be dependent upon subsidy, their books were conformed with the depreciation rates prescribed by the Board. The depreciation rates thus established were used both for accounting and rate-making purposes and few problems involving the lack of uniformity of depreciation accounting practices developed. However, with the emergence of a large part of the industry from dependence upon subsidy, the determinations by the Board of depreciation for rate-making purposes were less frequently adopted by the carriers for accounting purposes. This tended to undermine the value of the Uniform System of Accounts and reports filed with the Board thereunder because they no longer reflected the depreciation determinations by the Board. The lack of conformance with the Board's determinations of depreciation rates and the lack of uniformity of depreciation practices for accounting purposes among different carriers seriously undermined the value of the reports filed by the carriers for regulatory purposes.

In recognition of this need, and in connection with the establishment of an adequate uniform system of accounts, the Board undertook to prescribe the depreciation accounting practices of air carriers by the issuance of appropriate regulations (E.R. 224, adopted November 18, 1957). The courts held that the Board lacked authority to prescribe depreciation accounting practices. *Airlines et al.* v. *C.A.B.*, 257 F.2d 229 (C.A.D.C., 1958), *cert. denied*, 358 U.S. 881. Consequently, in order that the Board may effectively carry out its functions with respect to the depreciation accounting practices of air carriers, legislation is essential. Reliable and comparable financial data from which to appraise the true financial condition and operating results of the various air carriers are necessary to effective regulation. This cannot be readily obtained under the Court's interpretation of the Act which permits the carriers full liberty to account for depreciation in accordance with any method they elect.

The bill would bring the powers of the Board in the area of depreciation accounting in line with powers expressly given to the Interstate Commerce Commission, the Federal Power Commission, and the Federal Communications Commission (see 49 U.S.C. sec. 20(4), sec. 220(c) and sec. 913(d); 15 U.S.C. 171h(a); 16 U.S.C. 825a(a); and 47 U.S.C. 220(b)).

By Mr. MAGNUSON (by request):

S. 2609. A bill to amend the Federal Aviation Act of 1958 so as to assure opportunity for the board's participation and representation in certain court proceedings through its own counsel as a matter of right and to provide for all review of Board actions in the courts of appeals. Referred to the Committee on Commerce.

Mr. MAGNUSON. Mr. President, I introduce by request, for appropriate reference, a bill to amend the Federal Aviation Act of 1958 so as to assure opportunity for the Board's participation and representation in certain court proceedings through its own counsel as a matter of right and to provide for all review of Board actions in the courts of appeals, and ask unanimous consent that the letter of transmittal, statement of purpose and need be printed in the RECORD with the text of the bill.

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

S. 2609

A bill to amend the Federal Aviation Act of 1958 so as to assure opportunity for the Board's participation and representation in certain court proceedings through its own counsel as a matter of right and to provide for all review of Board actions in the Courts of Appeals

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled, That section 1006(a) of the Federal Aviation Act of 1958 (49 U.S.C. 1486(a)) is amended by striking out the period at the end of the first sentence therein and adding the following: ": *Provided,* That orders of the Board, including rules and regulations, shall be subject to review in accordance with the provisions of sections 2341–2351 of title 28, United States Code."

SEC. 2. Section 1008 of the Federal Aviation Act of 1958 (49 U.S.C. 1488) is amended by striking out the words "Board or," and ", as the case may be,".

SEC. 3. Chapter 158 of title 28, United States Code, is amended as follows:

(a) Section 2341(3) of that title is amended by:

(1) deleting the word "and" at the end of subsection (3)(B);

(2) deleting the period at the end of subsection (3)(C) and substituting "; and"; and

(3) adding at the end of subsection (3): "(D) the Board, when the order was issued by the Civil Aeronautics Board."

(b) Section 2342 is amended by:

(1) deleting the word "and" at the end of subsection (3);

(2) deleting the period at the end of subsection (4) and substituting "; and"; and

(3) adding at the end of the section: "(5) all final orders of the Civil Aeronautics Board made reviewable by section 1006(a) of the Federal Aviation Act of 1958 (49 U.S.C. 1486(a))."

CIVIL AERONAUTICS BOARD,
Washington, D.C., August 23, 1971.

Hon. SPIRO T. AGNEW,
President of the Senate, U.S. Senate, Washington, D.C.

DEAR MR. PRESIDENT: The Civil Aeronautics Board recommends to the Congress for its consideration the enclosed draft of a proposed bill "To amend the Federal Aviation Act of 1958 so as to assure opportunity for the Board's participation and representation in certain court proceedings through its own counsel as a matter of right and to provide for all review of Board actions in the Courts of Appeals."

The Board has been advised by letter from the Office of Management and Budget dated August 16, 1971, that there is no objection to the transmission of the draft bill to the Congress from the standpoint of the Administration's program.

Sincerely,

WHITNEY GILLILLAND,
Acting Chairman.

STATEMENT OF PURPOSE AND NEED FOR A DRAFT BILL TO AMEND THE FEDERAL AVIATION ACT OF 1958, TO ASSURE OPPORTUNITY FOR THE BOARD'S PARTICIPATION AND REPRESENTATION IN CERTAIN COURT PROCEEDINGS THROUGH ITS OWN COUNSEL AS A MATTER OF RIGHT AND TO PROVIDE FOR ALL REVIEW OF BOARD ACTIONS IN THE COURTS OF APPEALS

The judicial review provisions of the Federal Aviation Act do not expressly provide that the Board may participate in court proceedings through its own counsel as a matter of right. Moreover, the Department of Justice takes the position that the Board's participation in court proceedings is dependent upon its acquiescence and consent by reason of the provisions of section 1008 of the Act (49 U.S.C. 1488) which provide that "[u]pon request of the Attorney General, the Board * * * shall have the right to participate in any proceeding in court under the provisions of this Act."

In this connection, the House Oversight Committee recommended in 1959 that "[e]ach Commission should be allowed, as a matter of right, to participate and be represented in judicial proceedings involving the statute and regulations which it administers" (H. Rept. No. 2711, 85th Cong., 2nd Sess. 10 (1958)). A number of major regulatory agencies, such as the Federal Communications Commission, the Federal Maritime Commission, and the Atomic Energy Commission, have a clear right under the Hobbs Act to appear and be represented as a separate party in judicial review proceedings, which are under the general control of the Attorney General.

The Board believes that as an independent regulatory agency it too should have the right to appear and be represented as a separate party in court proceedings involving review of Board orders. Where conflicts of opinion have arisen with the Department of Justice regarding pending Board litigation, the Board on occasion has been deprived of the opportunity of making its views known to the court. Moreover, conflicts of interest may arise between the Department and the Board in circumstances in which the Department has participated as a party litigant in the Board proceeding in which the order under review was entered, and, even where there has been no such participation, as to policy matters such as antitrust considerations, overall questions of desirable procedures, and the like. Hence, it is essential, as recommended by the House Oversight Committee, that the Board be able to make its position known in addition to that of the Department of Justice. Such a procedure would allow the Board properly to carry out its functions and responsibilities, and at the same time permit the Department of Justice to make known to the court any policy considerations which it deems desirable or necessary in the public interest.

As to the matter of judicial review, the Hobbs Act specifically provides procedures under which non-hearing determinations may be reviewed in the Court of Appeals. At the present time, rule-making determinations of the Board having the force and effect of orders and entered without an evidentiary record are directly reviewable in the Federal District Courts rather than under the statutory provisions provided for review of Board orders. See *Arrow Airways, Inc.* v. *C.A.B.*, 182 F.2d 705 (C.A.D.C., 1950), *cert. denied*, 340 U.S. 828 (1950). On the other hand, an order *applying* a regulation to a specific factual situation is reviewable in the Courts of Appeals, and, as an incident to such review, the Court of Appeals also will pass upon the validity of the regulation. These alternate methods of challenging regulations have led to uncertainty and confusion which should be corrected, and all review of Board actions should be provided in the Courts of Appeals.

The bill accomplishes the foregoing objectives by amending sections 1006(a) and 1008 of the Federal Aviation Act, relating, respectively, to judicial review of Board orders and to the Board's participation in court proceedings, and by amending the Hobbs Act (28 U.S.C. 2341, *et seq.*).

By Mr. MAGNUSON (by request):

S. 2610. A bill to amend the Federal Aviation Act of 1958 so as to specifically provide that remedial orders issued by the Civil Aeronautics Board in enforcement proceedings may require the repayment of charges in excess of those in lawfully filed tariffs. Referred to the Committee on Commerce.

Mr. MAGNUSON. Mr. President, I introduce by request, for appropriate reference, a bill to amend the Federal Aviation Act of 1958 so as to specifically provide that remedial orders issued by the Civil Aeronautics Board in enforcement proceedings may require the repayment of charges in excess of those in lawfully filed tariffs, and ask unanimous consent that the letter of transmittal, statement of purpose, and need be printed in the RECORD with the text of the bill.

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

S. 2610

A bill to amend the Federal Aviation Act of 1958 so as to specifically provide that remedial orders issued by the Civil Aeronautics Board in enforcement proceedings may require the repayment of charges in excess of those in lawfully filed tariffs

Be it enacted by the Senate and House of Representative of the United States of America in Congress assembled, That section 1002(c) of the Federal Aviation Act of 1958 (49 U.S.C. 1482(c)) is amended to read as follows:

"(c) If the Administrator or the Board finds, after notice and hearing, in any investigation instituted upon complaint or upon their own initiative, with respect to matters within their jurisdiction, that any person has failed to comply with any provision of this Act or any requirement established pursuant thereto, the Administrator or the Board shall issue an appropriate order to compel such person to comply therewith, including an order directing restitution for compensation collected for air transportation, or for any service in connection therewith, which is greater than the rates, fares and charges applicable thereto under tariffs lawfully on file with the Board."

SEC. 2. Section 1007(e) of the Federal Aviation Act of 1958 (49 U.S.C. 1487(a)) is amended to read as follows:

"(a) If any person violates any provision of this Act, or any rule, regulation, requirement, or order thereunder, or any term, condition, or limitation of any certificate or permit issued under this Act, the Board or Administrator, as the case may be, their duly authorized agents, or, in the case of a violation of section 401(a) of this Act or an order directing a person to make restitution for compensation collected for air transportation which is greater than the rates, fares, and charges applicable thereto under tariffs lawfully on file with the Board, any party in interest may apply to the district court of the United States, for any district wherein such person carries on his business or wherein the violation occurred, for the enforcement of such provision of this Act, or of such rule, regulation, requirement, order, term, condition, or limitation; and such court shall have jurisdiction to enforce obedience thereto by a writ of injunction or other process, mandatory or otherwise, restraining such person, his officers, agents, employees, and representatives, from further violation of such provision of this Act or of such rule, regulation, requirement, order, term, condition or limitation, and requiring their obedience thereto."

CIVIL AERONAUTICS BOARD,
Washington, D.C., September 3, 1971.

Hon. SPIRO T. AGNEW,
President of the Senate, U.S. Senate, Washington, D.C.

DEAR MR. PRESIDENT: The Civil Aeronautics Board recommends to the Congress for its consideration the enclosed draft of a proposed bill "To amend the Federal Aviation Act of 1958 so as to specifically provide that remedial orders issued by the Civil Aeronautics Board in enforcement proceedings may require the repayment of charges in excess of those in lawfully filed tariffs."

The Board has been advised by letter from the Office of Management and Budget dated August 27, 1971, that there is no objection to the transmission of the draft bill to the Congress from the standpoint of the Administration's program.

Sincerely,

WHITNEY GILLILLAND,
Acting Chairman.

Enclosure.

STATEMENT OF PURPOSES AND NEED FOR A DRAFT BILL TO AMEND THE FEDERAL AVIATION ACT OF 1958 SO AS TO SPECIFICALLY PROVIDE THAT REMEDIAL ORDERS ISSUED BY THE CIVIL AERONAUTICS BOARD IN ENFORCEMENT PROCEEDINGS MAY REQUIRE THE REPAYMENT OF CHARGES IN EXCESS OF THOSE IN LAWFULLY FILED TARIFFS

Under the Federal Aviation Act, the Board, in its discretion, presently may entertain complaints against violations of the Act, including ones that charges have been collected in excess of those contained in effective tariffs, and may issue orders requiring air carriers to cease and desist from exacting such overcharges. However, the Act does not in terms authorize the Board to also order the carrier to repay the overcharges. The Board requires, therefore, as an incident to the issuance of cease and desist oders and for purposes of granting full relief, the authority to order restitution where charges are in excess of tariff ones.

The bill is not designed to establish the Board as a forum for adjudicating private claims for overcharges. Rather, the Board would retain its present discretionary authority as to whether it should entertain a complaint or leave the complainant to its judicial remedies. However, in circumstances in which the Board does entertain a complaint alleging tariff violations, the Board should be empowered to provide full relief by directing the repayment of any overcharges rather than relegating the complainant to its judicial remedies. For example, such authority is particularly desirable in light of the greatly expanded scope of group travel activities where it is possible that relatively slight overcharges with respect to individual passengers may not justify individual suits by them but where the aggregate amount involved may constitute a sizable sum which would constitute unjust enrichment to the carrier if retained by it. It should be emphasized that the bill does not result in the granting of reparations authority beyond that necessary to provide full relief to passengers and shippers by requiring air carriers to refund charges in excess of lawfully filed tariffs.

The bill amends section 1002(c) of the Act, relating to the entry of compliance, orders, and section 1007(a), relating to judicial enforcement of Board orders, in implementation of the proposal.

By Mr. MAGNUSON (by request):

S. 2611. A bill to amend the act of March 3, 1901 (31 Stat. 1449), as amended, to make improvements in fiscal and administrative practices for more effective conduct of certain functions of the National Bureau of Standards. Referred to the Committee on Commerce.

Mr. MAGNUSON. Mr. President, I introduce by request, for appropriate reference, a bill to amend the act of March 3, 1901 (31 Stat. 1449), as amended, to make improvements in fiscal and administrative practices for more effective conduct of certain functions of the National Bureau of Standards, and ask unanimous consent that the letter of transmittal and statement of purpose and need be printed in the RECORD with the text of the bill.

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

S. 2611

A bill to amend the Act of March 3, 1901 (31 Stat. 1449), as amended, to make improvements in fiscal and administrative practices for more effective conduct of certain functions of the National Bureau of Standards

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled, That the Act entitled "An Act to establish the National Bureau of Standards," approved March 3, 1901 (31 Stat. 1449) as amended, is further amended by adding the following section:

"SEC. 18. Appropriations to carry out the provisions of this Act may remain available for obligation and expenditure for such period or periods as may be specified in the Acts making such appropriations."

SEC. 2. Such Act is further amended by striking the period at the end of paragraph (19) of section 2, by inserting a comma in lieu thereof and by adding the following:

"And including the use of National Bureau of Standards scientific or technical personnel for part-time or intermittent teaching and training activities at educational institutions of higher learning as part of and incidental to their official duties and without additional compensation other than that provided by law."

SEC. 3. Such Act is further amended by revising the first sentence of section 3 to read as follows:

"The Bureau is authorized to exercise its functions for the organizations of which the United States is a member; for governments of friendly countries; for any State or municipal government within the United States; or for any scientific society, educational institution, firm, corporation, or individual within the United States or friendly countries engaged in manufacturing or other pursuits requiring the use of standards or standard measuring instruments: Provided that the exercise of these functions for international organizations, governments of friendly countries and scientific societies, educational institutions, firms, corporations, or individuals therein shall be in coordination with other agencies of the United States Government, in particular the Department of State.

SEC. 4. Such Act is further amended by deleting in section 14 the figure "$40,000" and substituting in lieu thereof the figure "$75,000."

SEC. 5. Such Act is further amended by revising section 15(b) to read as follows:

"(b) the care, maintenance, protection, repair and alteration of Bureau buildings and other plant facilities, equipment and property."

SEC. 6. That portion of the Act of April 29, 1926 (44 Stat. 356; 40 U.S.C. 14a) which relates to the National Bureau of Standards is hereby repealed.

THE SECRETARY OF COMMERCE,
Washington, D.C., September 15, 1971.

Hon. SPIRO T. AGNEW,
President of the Senate, U.S. Senate, Washington, D.C.

DEAR MR. PRESIDENT: Enclosed are four copies of a draft bill "To amend the Act of March 3, 1901 (31 Stat. 1449), as amended, to make improvements in fiscal and administrative practices for more effective conduct of certain functions of the National Bureau of Standards," together with a statement of purpose and need in support thereof.

We have been advised by the Office of Management and Budget that there would be no objection to the submission of this proposed legislation to the Congress from the standpoint of the Administration's program.

Sincerely,

MAURICE H. STANS,
Secretary of Commerce.

AMENDMENTS TO ORGANIC ACT OF NATIONAL BUREAU OF STANDARDS: STATEMENT OF PURPOSE AND NEED

INTRODUCTION

The Organic Act of the National Bureau of Standards is the Act of March 3, 1901, as amended (31 Stat. 1449; 15 U.S.C. 271–278g). The National Bureau of Standards (NBS) is a principal focal point in the Federal Government for assuring maximum application of the physical and engineering sciences to the advancement of technology in industry and commerce. To this end NBS conducts research and provides central national services in three broad program areas and provides central national services in a fourth. These are: (1) basic measurements and standards, (2) materials measurements and standards, (3) technological measurements and standards, and (4) transfer of technology.

The proposed amendments to the Organic Act would permit the following improvements in the fiscal and administrative practices of NBS for more effective conduct of its research and development activities:

1. Appropriation of funds to remain available beyond one fiscal year.

2. Clarification of authority to engage in teaching and training activities in areas of special NBS competence.

3. Clarification of authority to perform services for international organizations and governments of friendly countries and their institutions.

4. Increase monetary limitation relating to construction and improvement of NBS buildings and facilities from $40,000 to $75,000.

5. Clarification of authority to provide care, maintenance and protection of the buildings and property of NBS.

This bill proposes to add section 18 to the Organic Act as well as amend and revise portions of sections 2, 3, 14 and 15 of that Act. The bill would also repeal that portion of a 1926 statute which would become superfluous upon the enactment of the proposed revision of section 15 of the Organic Act. The intent of and need for each amendment and revision are explained in the paragraphs which follow.

Section 18. Appropriation availability

The proposed section 18 would provide statutory authorizations for appropriations for NBS to be on a multiple year basis or to be without fiscal year limitation. The final determination whether to limit the availability of an appropriation is made when the Congress acts on the appropriation bill, but an appropriation bill providing for a departure from single-year availability would be subject to a point of order if an authorizing statute had not previously been enacted. The proposed legislation is, therefore, merely a first step that must be taken before the question of extended appropriation availability can be raised with the Appropriations Committees.

Most research and development appropriations for other agencies are provided as "no-year" funds, available until expended. Their justification is found in the uncertainties inherent in research programs, the high incidence of unpredictable factors that compel readjustment of program activity, and the need for flexibility to permit prompt response to changed circumstances.

The reasons in support of the request to appropriate research funds on a no-year basis are set forth below in a summary of some of the pertinent NBS situations.

1. Problems of obtaining or developing essential equipment or recruiting essential scientists will often delay implementation of an initial stage of a research project. If the funds budgeted for that first stage are available only for one fiscal year and cannot be used that year, they are lost to the project and must be replaced in the succeeding year by all or part of the funds programmed for the second stage of the project. If the funds could be carried over from the first year, at least some of the lost time might be made up by doubling up of effort during the second year.

2. The opportunities to hire high-potential scientists and engineers frequently arise at the most inopportune time in the budget cycle. Because the academic year closes at about the same time as the fiscal year, recruitment commitments are often needed just at the time when appropriation requests are being considered by the Congress. The uncertainty about appropriation levels frequently prevents timely recruitment commitments. If appropriations could be carried forward to the succeeding year, funds could be set aside to assure the financing of the new staff members long enough to permit other adjustments in the succeeding appropriation if that becomes necessary.

3. The orderly and efficient planning for the initiation of given tasks or equipment purchases is best served by following a particular decision-making sequence. However, the rigid deadline on availability of funds often requires a deviation from that sequence because postponement of the decision means the loss of the funds and, thus, elimination of the task or purchase.

4. Program expansions, especially in times of recruiting difficulty, such as those described above, involve problems of budgeting that are aggravated by the single-year availability of funds. It would be much more efficient and desirable to budget for the first 12 months or first full stage of a research project, even though this would cross over into a second fiscal year.

Amendment to section 2 authority to teach

The proposed amendment to paragraph (19) of section 2 of the Organic Act would clarify the authority of NBS to engage in teaching and training activities in areas of special NBS competence. In particular, it would enable NBS scientific and technical personnel under certain circumstances to teach at educational institutions of higher learning as part of their official duties. The amendment would provide a needed clarification of the authority to publish and distribute scientific and technical data presently permitted by the referenced paragraph (19). Such clarification would serve as a further means of diffusing the technology of NBS. It would serve also to facilitate, when needed, the establishment of cooperative arrangements with educational institutions. Thus, arrangements similar to that involving the highly successful Joint Institute for Laboratory Astrophysics (JILA), which NBS established in cooperation with the University of Colorado some years ago, could be consummated with greater ease because of a more appropriate legal framework in which to operate.

The activities authorized by paragraph (19), section 2, of the Organic Act are among the most important services offered by NBS. This authorization provides the basis for the extensive program of publications, exhibits, and demonstrations through which the science and technology evolved at NBS are transferred to the scientific and industrial community. It permits NBS to compile and diffuse general scientific and technical information of importance to science and industry, and not elsewhere available, in addition to reporting the results of NBS studies.

Experience has indicated that one of the most effective ways to accomplish this transfer of highly technical knowledge and skills is through teaching and training activities. In recent years, NBS has conducted numerous special training courses designed to be of benefit to a variety of professional fields

ranging from computer specialists to State weights and measures officials. During the past ten years, approximately 1200 trainees from 48 countries spent anywhere from a few days to several months in NBS laboratories under the auspices of the Agency for International Development and similar organizations. In addition, NBS annually joins in the sponsorship of numerous symposia designed to acquaint scientists and engineers with the latest developments in technical fields that are within the sphere of competence and responsibility of NBS.

NBS has a long history of close and profitable contact with universities. There has been active collaboration between NBS and university scientists on numeorous research efforts. NBS has benefited greatly from its postdoctoral fellowship program and has made extensive use of visiting scientists and consultants drawn from university faculties. Members of the technical staff of NBS and university staff members have lectured at each others institutions, and a large number of NBS employees have obtained advanced degrees, utilizing projects carried out under the direction of senior NBS scientists to meet thesis requirements.

Certainly the most unique and one of the most rewarding of these collaborative efforts began with the establishment in 1962 of JILA, in cooperation with the University of Colorado. At that time, it was determined that this Nation's objectives in space and in other emerging fields of science and technology required a substantially increased research effort in the measurement problems peculiar to hot gases and stellar atmospheres. Moreover, there were few scientists in this country trained in this highly specialized field known as "laboratory astrophysics," and there was no academic institute devoted primarily to such research and training of students. While NBS had some unique talents and facilities in this field, it was concluded that the expansion of research and training activities needed to meet national goals could only be accomplished in an academic setting. Accordingly, JILA was established in cooperation with the University of Colorado on the campus of the University. Here, Government and university scientists, together with distinguished visiting scientists from all over the world, have worked in close collaboration to produce outstanding research results and an exceptional center for graduate study in this specialized field. In its relatively brief history, JILA has already achieved an international reputation.

A key element in the success of JILA was the administrative determination that NBS scientists at JILA be permitted to participate in teaching activities as part of their official duties. This was considered essential in view of the particular objectives and circumstances associated with that program. The university for its part contributes research support by graduate students to NBS projects.

The proposed legislation would clarify the authority of NBS and facilitate the development of other joint programs similar to that created under the agreement with the University of Colorado, but not necessarily structured as JILA. Individual members of the staffs of appropriate universities and NBS would be identified with a given program, and would adopt joint research and education goals, but initially at least would not be housed together, as under the JILA arrangement. The technical content of the program would be based on the common interests of the collaborating members. Appropriate steps would be taken to assure that NBS, not NBS personnel would receive any compensation that may be provided for the efforts expended by NBS personnel in preparing for and conducting classroom and laboratory instruction.

The program and facilities of the NBS make it an extremely appropriate laboratory for university collaboration. The work of NBS runs the gamut from very basic research to thoroughly applied technology including a wide range of activities of interest to both science and engineering departments of many universities. The benefits to be derived from such collaborative efforts would flow not only to the graduate students, to whom most of the teaching efforts of NBS would be directed, but also to NBS. It is now well recognized that graduate research is an integral part of the training process, that the quality of teaching is generally enhanced when the teacher is himself engaged in research activities, and that the quality of research is often improved when the researcher is involved in teaching bright, inquisitive students.

Indeed, as was stated in "Scientific Progress, the Universities, and the Federal Government," the President's Scientific Advisory Committee Report of 1960:

"We believe that research, learning, and teaching are deeply connected processes which should be kept together, whenever possible. Not all basic research should be—or could be—performed in our universities but where it is done separately, special efforts should be made to take advantage of its educational value. We note that the separate installations which do the best work are, as a rule, those which have a close and effective connection with academic centers."

Such collaboration, involving participation of selected members of the NBS technical staff in university functions, would:

(1) Encourage active participation of outstanding university scientists in NBS programs,

(2) Bring university scientists into natural and effective contact with national goals and problems,

(3) Serve as an excellent recruitment device of fresh young people for NBS, by bringing NBS teaching staff into intimate contact with large numbers of graduate students during their critical early career years,

(4) Serve as a recruitment incentive for mature scientists who desire to maintain academic contacts and feel that such activities are a definite career stimulus and enhancement to scientific productivity, and

(5) Serve to advance the quality and caliber of applied research and engineering at NBS and elsewhere, an area in which the universities, too, feel they are lagging behind national responsibilities.

Amendment to section 3

The proposed revision of section 3 of the Organic Act would clarify the authority of NBS to perform its services for international organizations of which the United States is a member and for friendly countries and their institutions. At present, NBS has specific authority to exercise its functions only for the Federal Government, State and local governments, and for institutions and firms within the United States.

The increasing complexity of modern measurement techniques combined with the increasing cost of facilities required to calibrate and standardize measurement instruments which are a vital part of international commercial, technological, scientific, and defense activities has created a growing need for NBS under direction from the Department of Commerce to provide calibration, measurement, and other specialized services to certain international organizations and to friendly foreign countries. Moreover, the position of the United States as a leader in the international community in science and technology requires it to take an active part to encouraging international standardization.

For many years NBS has cooperated with the national standards laboratories of other nations, both directly in cooperation with the Department of State, and indirectly through the International Bureau of Weights and Measures. NBS also has cooperated with various other foreign scientific institutions which are engaged in studies of direct interest to NBS or other agencies of the U.S. Government. These exchanges of scientific information and special measurement services have been encouraged as an essential part of the responsibilities of the NBS and the Department for the correlation of our national measurement system with those of other nations, and for the precise determination of important physical constants.

In recent years, however, there have been increasing requests for NBS assistance from a variety of sources in other countries including commercial laboratories, as well as government and academic institutions. Some of these requests have been accommodated under the basic authority and responsibility of the Department of Commerce to foster and promote international trade as set out in 15 U.S.C. 1512. For example, foreign laboratories now purchase about $345,000 worth of standard reference materials per year from NBS. These are samples of highly characterized materials prepared and sold by NBS for use in a variety of scientific and technological operations such as checking chemical analysis, temperature, color, viscosity, heat of combustion, and various basic properties of materials. Reference materials of this sort provide an important basis for determining the nature and quality of many products sold in international trade. The industrial technology of the United States is certainly one of the largest items exported by the U.S. in foreign trade. Examples are: design and construction of oil refineries, steel mills, petro-chemical complexes, nuclear power plants. Basic to the operation of all of these are sophisticated process control analytical equipment such as emission spectrographs for the control of steel-making, nuclear instrumentation for controlling power reactors, etc. All of these instruments require careful and continual calibration by standards. The best standards in the world for steels of all types are those made and certified by NBS. They are designed for and work best with U.S. analytical equipment which gives the United States a predominant and highly competitive position in this area of world trade. Hence, providing foreign customers with convenient access to the same reference materials used by the producers of American products is beneficial to the economic interests of the United States. The sale of these reference materials to foreign countries now amounts to approximately 30% of NBS' total activity in this area. An increase in such sales would help to combat the adverse gold flow which the United States has long sought to stem.

Similar reasons exist for NBS to extend its calibration and measurement services to foreign and international organizations. For example, friendly foreign purchasers of the highly sophisticated scientific and technological measurement instruments produced in the United States should be able to obtain calibration services from NBS when suitable services are not available in their own country. However, in view of the limitations implied in its Organic Act, NBS generally has restricted such assistance to requests from other national standards laboratories, and to requests endorsed by other Federal agencies, such as the Department of State. Such an endorsement provides a clear legal basis for NBS to provide the service under its responsibility for assisting other Federal agencies.

In view of the increasing importance to the United States of international trade, and the very significant role of measurements and standards in facilitating such trade, it is now essential that NBS have greater flexibility in responding to the growing number of requests for its assistance from foreign and international sources. In particular, the extension of calibration and related measurement services to underdeveloped countries can be an important factor in encouraging the use of U.S. produced instruments and equipment in their

laboratories and emerging industries. Moreover, through their adoption of measurement devices and techniques compatible with U.S. practice, the way is cleared for a continuing fruitful exchange of goods and services with the United States.

The need to facilitate international trade and commerce is also the basic reason that NBS services should be available to international organizations and friendly foreign governments concerned with the development of the technical standards and specifications that increasingly influence the course of international trade. These international standards can have profound long-range effects on this country's overseas markets, and it is essential that the unique technological competence of NBS be available to support U.S. interests during their development.

The proposed clarification of the authority of NBS would enable it to respond more rapidly and effectively in those situations where its services can make an important contribution to U.S. objectives in international trade and international scientific programs. These services would be provided selectively when they are not available elsewhere, and are essential to U.S. objectives. It is not the intention of NBS to extend its services automatically to all foreign customers.

It also should be understood that NBS would not expect to make any significant change in its well established practices of coordination and cooperation with the Department of State as a result of enactment of the proposed legislation. NBS staff members are participants in meetings of many international organizations concerned with measurement standards and numerous other technical subjects related to NBS responsibilities. Experience has indicated that the assistance of the Department of State is invaluable to NBS in these matters. Accordingly, the proposed new authorization would continue and strengthen this practice by requiring that the Secretary of Commerce coordinate, with the Department of State and other agencies of the United States Government as appropriate, his participation in and the carrying out of international activities.

Finally, the services of NBS normally are provided on a reimbursable basis. The proposed legislation would not alter this procedure. The technical assistance provided to the commercial laboratories of other nations under the proposed authority will be at no additional cost to the United States. The authority would be subject to existing rules and regulations and to such others as the Secretary of Commerce may publish.

Amendment to section 14

The proposed legislation would increase the monetary limitation on construction and improvements of buildings and facilities of NBS to $75,000. At present, the limit on such construction or improvements is $40,000 unless specific provision is made for construction or improvements in the appropriation concerned.

The monetary limitation was originally established in 1950 at $25,000 and increased to $40,000 in 1958. The present limitation has, over the past 12 years, become steadily more burdensome in light of the increasing cost of construction work and material and in meeting the expanding needs of NBS in fulfilling its mission. While specific appropriation authority is sought for extensive construction and improvement of the buildings and facilities of NBS, it frequently is not possible to anticipate relatively minor construction and improvement needs so as to include such items in the specific appropriation request.

Accordingly, unless an increase in such monetary limitation is obtained, undue delay is encountered until the specific appropriation authorization is obtained even though the construction work in question is comparatively small. To avoid this situation, it is desired to raise the mentioned $40,000 limitation to $75,000. The proviso presently in the statute requiring specific provision in the appropriation concerned to construct buildings or make improvements in an amount in excess of the monetary limitation would remain unchanged under the proposed amendment to this section of the Organic Act.

Amendment to section 15

The proposed legislation would amend section 15(b) of the Organic Act with respect to protection of the property of NBS. A portion of the Act of April 29, 1926 (44 Stat. 356; 40 U.S.C. 14a) gave to the Secretary of Commerce the responsibility for "the care, maintenance, and protection of the *buildings occupied by the Bureau of Standards* of the Department of Commerce *in the District of Columbia* . . ." (Italic added.).

NBS has now virtually completed the move of its offices and staff from its site in the District of Columbia to its new facilities at Gaithersburg, Maryland. NBS has also maintained for some years a large installation at Boulder, Colorado. The withdrawal therefore of the activities of NBS in the District of Columbia and the establishment of its major operations at Gaithersburg takes on added importance with regard to providing for the care and protection of the buildings and property of NBS.

The proposed legislation would amend section 15(b) of the Organic Act by granting to the Secretary of Commerce the authority to provide care, maintenance and protection of the buildings and property of NBS without limiting such authority to buildings located in the District of Columbia as is now stated in the 1926 statute cited above. The authority granted by the Amendment would be combined with the Secretary's present authority to undertake the repair and alteration of the buildings and plant facilities of NBS. As the authority granted by the proposed amendment would include the lesser authority now held by the Secretary under the 1926 statute, this legislation would repeal the referenced portion of the Act of April 29, 1926.

By Mr. RANDOLPH (for himself and Mr. JACKSON):

S. 2612. A bill to establish policy and principles for planning the use of the water and related land resources of the United States. Referred to the Committee on Interior and Insular Affairs.

Mr. RANDOLPH. Mr. President, I am introducing today, for appropriate reference, a bill to establish policy and principles for planning the use of the water and related land resources of the United States. The distinguished Senator from Washington (Mr. JACKSON) joins me in the introduction of this important legislation.

The need for this legislation results from the inability of the Water Resources Council to carry out its functions as delineated by the Congress. I am not, however, accusing the Council of any dereliction of its duties under the Water Resources Planning Act, because its failure to act is due entirely to the unreasonably long period of review by the Office of Management and Budget. Therefore, I feel it necessary for Congress to act in this matter. The water resource programs authorized by the Committees on Public Works and Interior and Insular Affairs are directly affected by the policy and principles developed by the Water Resources Council.

The bill which I introduce today for myself and my able colleague from Washington, was drafted at my request by the Director of the Water Resources Council. It represents, generally, the findings and recommendations of the Council's special task force.

As the Members of this body know, Congress established the Water Resources Council at the time it enacted the Water Resources Planning Act of 1965. By that act, the Council is charged with the responsibility of establishing criteria for the formulation and evaluation of Federal water and related land resource projects.

The criteria presently used by the agencies was developed prior to creation of the Council and is set forth in Senate Document No. 97, of the 87th Congress. These guidelines have not been altered by the Council, except for a revision in the discount rate formula made in 1968. This change resulted in an immediate increase in the discount rate and the rate has been increased each year since that time. The higher discount rate and the lack of consideration of "secondary benefits," although their use is specified in Senate Document 97, resulted in fewer projects being found economically justified. As a consequence, many worthy water resource projects located throughout the Nation are not eligible for Federal assistance.

As an aftermath of the change in the discount formula, the Council received many comments from congressional and other water resource interests. All emphasized the need for better evaluation procedures, and many cited the inadequacies and inconsistencies of the present procedures used to evaluate benefits and costs of proposed water resource projects.

Responding to demands for a review of the adequacy of existing criteria, the Council set up a special task force to study the problem. The revised criteria subsequently developed by the task force provides for evaluating projects on the basis of these objectives: National economic efficiency, regional development, environmental and social well-being. Following the recommendations of the task force, it was expected that the Council would take action to establish the new criteria at an early date. However, this has not been the case. More than a year has passed during which time the proposed guidelines have been under review by the Office of Management and Budget, but there is no indication that action will soon be taken to implement the recommendations of the task force. Therefore, I feel that Congress must take the initiative in this matter if we are to have an on-going Federal water resources development program.

Mr. President, I ask unanimous consent that the bill, together with a section-by-section analysis, be printed at this point in the RECORD.

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

S. 2612

A bill to establish policy and principles for planning the use of the water and related land resources of the United States

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled,

SHORT TITLE

SEC. 1. This Act may be cited as the "National Water and Related Land Resources Policy Act."

DECLARATION OF POLICY

SEC. 2. It is hereby established as national policy that planning the use of the water and related land resources of the United States shall be undertaken and conducted so as to achieve the objectives of national economic development, environmental quality, social well-being, and regional development, in accordance with the provisions of this Act.

(a) Planning for the use of water and land resources in terms of these multiobjectives will be conducted so as to identify alternative plans of action and to provide information needed to improve the public decisionmaking process in choosing among alternative plans.

(b) The Water Resources Council will carry out this policy by establishing, after such consultation with other interested entities, both Federal and non-Federal, as the Council may find appropriate, and with the approval of the President, standards and procedures which provide for Federal participation with States and others in the preparation, formulation, evaluation, review, revision, and transmission to the Congress of plans for regions, river basins, and Federal and Federally assisted water and land resource programs and projects. Such procedures may include provision for Council revision of plans for Federal projects intended to be proposed in any plan or revision thereof being prepared by a river basin planning commission.

STATEMENT OF OBJECTIVES

SEC. 3. Existing or projected needs and problems expressed by the people through their local, State, regional, or national institutions have created a need for water and land resource management and use. These needs and problems are of such a multigovernmental nature that their resolution requires cooperation and coordination by many levels of government and private interests.

(a) The overall purpose of water and land resource planning is to reflect society's preferences for attainment of the objectives defined below:

(1) To enhance national economic development by increasing the value of the Nation's output of goods and services and improving national economic efficiency.

(2) To enhance the quality of the environment by the management, conservation, preservation, creation, restoration, or improvement of the quality of certain natural and cultural resources and ecological systems.

(3) To enhance social well-being by the equitable distribution of real income, employment, and population, with special concern for the incidence of the consequences of a plan on affected persons or groups; by contributing to the security of life and health; by providing educational, cultural, and recreational opportunities; and by contributing to national security.

(4) To enhance regional development through increases in a region's income; increases in employment; and improvements of its economic base, environment, social well-being, and other specified components of the regional objective.

(b) No one objective has any inherently greater claim on water and land use than any other. The principles embodied in this Act do not imply the relative priorities to be assigned among the above multiobjectives in plan formulation and evaluation. However, such principles do provide for a systematic approach by which the general public and decisionmakers can assess the relative merits of achieving alternative levels of satisfaction to several objectives where there may be conflict, competition, or complementarity among them.

DEFINITION OF BENEFITS AND COSTS

SEC. 4. Plans for the use of water and land resources have benefits and costs that affect more than one of the multiobjectives.

(a) Benefits of a plan are defined as positive (beneficial) contributions toward the accomplishment of the multiobjectives.

(b) Costs of a plan are defined as negative (adverse) effects on the multiobjectives.

(c) National economic development benefits and costs, environmental quality benefits and costs, social well-being benefits and costs, and regional development benefits and costs are to be measured in quantitative units or qualitative terms appropriate to a particular objective.

(d) The multiobjectives are not mutually exclusive with respect to benefits and costs, and final decisions as to the recommended plan will be made by considering the differences among alternative plans as to their beneficial and adverse effects on all objectives.

Section 5. Benefits.

(a) *National Economic Development.* National economic development benefits are increases in the value of the output of goods and services and improvements in national economic efficiency resulting from a plan. These benefits are:

(1) The value to users of increased outputs of goods and services;

(2) The value of output resulting from external economies; and

(3) The value of output resulting from the use of resources otherwise unemployed or underemployed.

(b) *Environmental Quality.* Environmental quality benefits are contributions resulting from the management, preservation, or restoration of one or more of the environmental characteristics of an area under study or elsewhere in the Nation. The measures used to describe these benefits will vary, depending on the specification of the environmental characteristics.

The benefits of a plan may include but are not limited to:

(1) Management, protection, enhancement, or creation of open and green space, wild and scenic rivers, lakes, beaches, shores, mountain and wilderness areas, estuaries, or other areas of natural beauty;

(2) Management, preservation, or enhancement of especially valuable archeological, historical, biological, and geological resources and selected ecological systems;

(3) Enhancement of the quality of water, land, and air by control of pollution;

(4) Prevention of erosion and restoration of eroded areas; and

(5) Preservation of freedom of choice to future resource users by actions that minimize or avoid irreversible of irretrievable effects.

(c) *Social Well-Being.* Social well-being benefits resulting from a plan are contributions to the equitable distribution of real income, employment, and population; contributions to the security of life and health; provision of educational, cultural, and recreational opportunities; and contributions to national security. These benefits may occur in the area under study or elsewhere in the Nation. The measures used to describe these benefits will vary but when possible will be in dollars, other quantitative units, or qualitative terms.

These benefits include but are not limited to:

(1) Increased real income of persons or groups defined as being relevant to evaluation of a plan;

(2) Contributions toward achieving specified goals for population dispersal and urban-rural balance through improved distribution of population and employment opportunities;

(3) Enhancement of the security of life and health by reducing risk of flood, drought, or other disaster and by minimizing hazards to health and safety;

(4) Improvement of conditions contributory to attainment of economic stability;

(5) Provision of educational, cultural, and recreational opportunities; and

(6) Contributions to national security by providing reserve capacities in water resource systems and protection against interruption of the flow of essential goods and services at times of critical need.

(d) *Regional development.* Regional development benefits of a plan include positive contributions to specified components of the regional development objective and the benefits to the region of achieving national economic development, environmental quality, and social well-being objectives.

(1) Where the regional development objective includes increases in regional income, the benefits are:

(i) The value of increased outputs of goods and services from a plan to the users residing in the region under consideration;

(ii) The value of output to users residing in the region under consideration resulting from external economies;

(iii) The value of output in the region under consideration resulting from the use of resources otherwise unemployed or underemployed; and

(iv) Additional net income accruing to the region under consideration from the construction or implementation of a plan and from other economic activities induced by operations of a plan.

(2) Where the regional development objective relates to regional employment, the benefits include but are not limited to increases in the number and types of jobs resulting from a plan.

(3) Where the regional development objective relates to regional economic stability, the benefits include but are not limited to improvements in the regional economic base.

(4) Where the regional objective relates to enhancement of environmental quality, or to social well-being, the benefits include those defined above under the components of these objectives, if and insofar as they have special reference to the region under consideration.

Section 6. Costs.

(a) *National Economic Development.* National economic development costs of a plan are:

(1) The value of resources required for a plan;

(2) Losses in output resulting from external diseconomies; and

(3) Losses in output from resources displaced and subsequently unemployed.

(b) *Environmental Quality.* Environmental costs are consequences of a proposed plan that result in the deterioration of relevant environmental characteristics or reduce freedom of choice of resource users in the area under study or elsewhere in the Nation. These include but are not limited to:

(1) Inundation, adverse alteration, or decreases in use of open and green space, wild and scenic rivers, lakes, beaches, shores, mountain and wilderness areas, estuaries, or other areas of natural beauty;

(2) Inundation, deterioration, or disruption of especially valuable archeological, historical, biological, and geological resources and ecological systems;

(3) Deterioration of quality of water, land, or air resources;

(4) Increased erosion; and

(5) Irreversible and irretrievable commitment of resources which minimizes or precludes the freedom of choice of future resource users.

(c) *Social Well-Being.* Social well-being costs of a plan are adverse consequences on the components of this objective in the planning area and elsewhere in the Nation. Social well-being costs includes but are not limited to:

(1) The reduced real income of persons or groups, defined as being relevant to evaluation of a plan, due to taxes, reimbursement

charges, and other adverse economic effects of a plan;

(2) Adverse concentration of population or employment contrary to specified goals;

(3) Increases in hazards to life, health, or safety;

(4) Adverse effects on economic stability;

(5) Adverse effects on educational, cultural, and recreational opportunities; and

(6) Overloading capacities of water resource systems and increasing the risk of interruption in the flow of essential goods and services needed for special requirements of national security.

(d) *Regional Development.* Regional development costs of a plan include the adverse effects to specified components of the regional development objective and the costs to the region of achieving the national economic development, environmental quality, and social well-being objectives.

(1) Where the regional development objective relates to regional income, these costs are:

(i) The value of resources contributed from within the region to achieve the outputs of a plan;

(ii) Payment through taxes, assessments, or reimbursement by the region for resources contributed to the plan from outside the region;

(iii) Losses in output resulting from external diseconomies to users residing in the region under consideration;

(iv) Loss of assistance payments from sources outside the region to otherwise unemployed or underemployed resources residing in the region under consideration; and

(v) Loss of net income in the region under consideration from other economic activities displaced by construction or operation of a plan.

(2) Where the regional development objective relates to regional employment, the costs include but are not limited to decreases in the numbers and types of jobs resulting from the development.

(3) Where the regional development objective relates to regional economic stability, the costs include but are not limited to adverse effects on the regional economic base.

(4) Where the regional objective relates to enhancement of environmental quality or to social well-being, the costs include those detailed above under those headings if and insofar as they have special reference to the region under consideration.

GENERAL EVALUATION PRINCIPLES

Section 7. General Setting.

(a) Full employment will be assumed except where local areas of chronic unemployment, underemployment, or other conditions indicate otherwise.

(b) Plan formulation and evaluation will be based on national and regional projections of employment, output, and population and the amounts of goods and services that are likely to be required. Actual or projected needs for water and land resources will be related to these projections.

(c) Plans will take into account established Federal, State, and local government standards and goals for the quality of the environment, social well-being, or regional development.

Section 8. Measurement of Benefits and Costs. Benefits and costs of each alternative plan will be determined by comparing the conditions expected with the plan to the conditions expected without the plan. Since substantial changes may be expected even in the absence of the plan, care should be taken that this fact is properly reflected in plan formulation and evaluation.

Section 9. Price Relationships. When prices are used in evaluation they should reflect the real exchange values expected to prevail over the period of analysis. For this purpose, relative price relationships and the general level of prices prevailing during the planning study will be assumed to hold generally for the future, except where specific studies and considerations indicate otherwise.

Section 10. The Discount Rate. The interest rate to be used in plan formulation and evaluation for discounting future benefits and computing costs, or otherwise converting benefits and costs to a common time basis shall be based upon the average rate of interest payable by the Treasury on interest-bearing marketable securities of the United States outstanding at the end of the fiscal year preceding such computation which, upon original issue, had terms to maturity of 15 years or more. Where the average rate so calculated is not a multiple of one-eighth of 1 percent, the rate of interest shall be the multiple of one-eighth of 1 percent next lower than such average rate.

Section 11. Consideration and Comparison of Alternatives.

(a) A range of possible alternatives to meet needs and problems, including types of measures and alternatives capable of application by various levels of government and by nongovernmental interests, should be studied. These alternatives should be evaluated or judged as to their contribution to the multiobjectives.

(b) Plans, or increments thereto, will not be recommended for Federal development that, although they have positive contributions to the multiobjectives, would physically or economically preclude alternative non-Federal plans which would likely be undertaken in the absence of the Federal plan and which would more effectively contribute to the multiobjectives when comparably evaluated according to the provisions of this Act.

Section 12. Period of Analysis.

(a) The period of analysis will be the lesser of (1) the period of time over which the plan can reasonably be expected to serve a useful purpose or (2) the period of time when further discounting of benefits and costs will have no appreciable effects on design.

(b) Appropriate consideration will be given to long-term environmental and social well-being factors which may extend beyond periods significant for analysis of national economic development or regional development benefits and costs.

Section 13. Scheduling.

(a) Plans should be scheduled for implementation in relation to needs so that desired multiobjective benefits are achieved effectively.

(b) Benefits and costs, occurring according to different patterns in time, are affected differently by the discount process when plans are scheduled for implementation at alternative future times. Therefore, plan formulation should analyze the alternative schedules of implementation to identify the schedule that would result in the most desirable mix of contributions to the multiobjectives when the benefits and costs of a plan are appropriately discounted.

Section 14. Risk and Uncertainty.

(a) Risk is characterized by a distribution of events occurring according to reasonably well-known probabilities, even though their sequence and time of occurrence cannot be determined. Frequency analysis in hydrology, where long records are available or can be mathematically simulated, is an example of predictable risk. In such situations, it may be necessary to choose between planning for average or probable conditions and planning for extreme events. When this is done, the nature of the choice and its relationship to the multiobjectives will be clearly stated. Predictable risk, based upon past experience, should not be divorced from predictable or foreseeable trends which would alter probabilities based solely upon previous experience.

(b) Uncertainty is characterized by the absence of any known probability distribution of events. This is often the situation in water resources planning. The nature of uncertainty associated with the planning study, strategies proposed to deal with uncertainty, and their impact on the multiobjectives should be reported. In addition, sensitivity analysis may be employed to analyze uncertain situations.

Section 15. Sensitivity Analysis. Plans should be examined to determine their sensitivity to data availability and to alternative assumptions as to future economic, demographic, and technologic trends. Selected alternative projections and assumptions that are reasonably probable and that, if realized, would apprecably affect plan design or scheduling should be analyzed.

Section 16. Updating Plans. Because of rapid change in social, economic, technologic, physical, and other factors, a plan that is not implemented within a reasonable time after completion will be reviewed, as provided in the standards established under section 2, to ascertain whether it continues to be the best alternative to achieve the multiobjectives.

FORMULATION OF ALTERNATIVE PLANS

Section 17. Plans will be directed to meeting current and projected needs and problems as identified by the desires of people in such a manner that improved contributions are made to society's preferences for national economic development, environmental quality, social well-being, and regional development.

(a) These plans should be formulated to reflect national, regional, State, and local needs or problems.

(b) Multiobjective planning of water and land resources under this Act is a part of broader public and private planning to meet regional and local needs and to alleviate problems. Therefore, planning for water and land resources should be carefully related to other regional or local planning activities and should include active participation of all interests.

(c) Plans for water and land resources will focus upon the specified components of the multiobjectives desired for the designated region, river basin, or local planning setting. These are expressed in terms of projected needs and problems identified if each planning setting.

(d) The planning process will include the following major steps:

(1) Specify components of the multiobjectives relevant to the planning setting;

(2) Evaluate resource capabilities and expected conditions without any plan;

(3) Formulate alternative plans to achieve varying levels of contributions to the specified components of the multiobjectives;

(4) Analyze the differences among alternative plans which reflect different emphases among the specified components of the multiobjectives;

(5) Review and reconsider, if necessary, the specified components for the planning setting and formulate additional alternative plans as appropriate; and

(6) Select a recommended plan based upon an evaluation of the tradeoffs among the various objectives.

Section 18. Specification of Components of the Multiobjectives.

(a) At the outset and throughout the planning process, the responsible planning organization will consult appropriate Federal, regional, State, and local groups to ascertain the components of the multiobjectives that are significantly related to the use and management of the resources in the planning setting. These will be expressed in terms of needs and problems.

(b) Explicit consideration will also be given to components of the multiobjectives declared to be in the national interest by the Congress or by the executive branch through the Water Resources Council.

(c) Specified components will be reviewed and reconsidered as planning proceeds.

(d) The specified components will be de-

fined so that meaningful alternative levels of achievement are identified. It is intended that this will facilitate the formulation of alternative plans in cases where there may be technical, legislative, or administrative constraints to full achievement of objectives.

Section 19. Evaluation of Conditions Without Plan. The identification of the specified components of objectives will necessarily involve an appraisal of future economic, environmental, and social conditions expected without the plan as compared with those desired by people for the planning area. In addition, a sufficient inventory and appraisal of the water and land resource base of the planning area will be necessary.

Section 20. Formulation of Alternative Plans. The planning process involves an evaluation of alternative means including nonstructural measures to achieve desired objectives in the context of water and land resources.

(a) Based upon identified needs and problems, alternative plans will be prepared and evaluated in the context of their contributions to the multiobjectives. This involves comparisons among objectives, and it will be necessary to formulate alternative plans that reflect different relative emphasis among the objectives for the planning setting.

(b) The number of alternative plans to be developed for each planning effort will depend upon complementarities or conflicts among specified components of the objectives, resource capabilities, technical possibilities, and the extent to which the design of additional alternative plans can be expected to contribute significantly to the choice of a recommended plan.

(c) Because planning staffs are limited, emphasis should be placed on examination of those water and land use plans which may have appreciable effects on objectives.

(d) Appropriate methods and techniques for estimating benefits and costs will be used to provide reliable estimates of the consequences and feasibility of each alternative plan.

(e) In cases where the tradeoffs among objectives are judged to be significant in the context of either national priorities or more localized priorities, an alternative plan will be formulated to emphasize the contributions to each such objective. One such alternative plan will be formulated in which optimum contributions are made to the national economic development objective.

(f) Alternative plans will provide for identifying the full range of the tradeoffs among significant conflicting objectives. Investigation of alternatives should not be limited, however, to those emphasizing specific objectives lest an overall best plan be overlooked.

(g) Four tests will be applied in the formulation of any given alternative plan:

(1) The acceptability of the alternative plan to the public and compatibility with institutional constraints;

(2) The effectiveness of the alternative plan in meeting component needs of the multiobjectives;

(3) The efficiency of the plan in meeting component needs of the multiobjectives and a demonstration that the plan represents the least-cost means, considering all adverse effects, of achieving such component needs; and

(4) The completeness of the plan in accounting for all investments and other required inputs or actions.

Section 21. Analysis of Alternative Plans.

(a) The display of beneficial and adverse effects for each alternative plan will be prepared so that the differences among alternatives can be clearly shown and accurately analyzed.

(b) The analysis will provide the rationale for the selection of a recommended plan and the underlying evaluation of the various alternative plans, and will provide the information on which the planning organization and others can base judgments as to the most desirable mix of beneficial effects on objectives as compared with the adverse effects.

(c) The tradeoffs among alternative plans should be displayed as fully as possible to facilitate administrative and legislative review and decision.

Section 22. Reconsideration of Specified Components of the Multiobjectives. As planning proceeds, the specified components will be reviewed and reconsidered as appropriate.

(a) This reconsideration may result from new information, revised projections, changes in policy, or technological innovations.

(b) Reconsideration of components may result in modifying alternatives or developing additional alternative plans.

Section 23. Selection of a Recommended Plan. From its analysis of alternative plans, the planning organization will select a recommended plan.

(a) The plan selected will reflect the importance attached to different objectives and the extent to which different objectives can be achieved by carrying out the plan.

(b) The recommended plan should be formulated so that benefits and costs to objectives reflect, to the best of current understanding and knowledge, the priorities and preferences expressed by the public at all levels to be affected by the plan.

(c) A plan will be recommended only if in the judgment of the planning organization the total benefits (monetary and nonmonetary) to all objectives are equal to or exceed the total costs (monetary and nonmonetary) to all objectives.

(d) In addition to the recommended plan with supporting analysis, other alternative plans embodying different priorities among the desired objectives will be presented in the planning report. Included with the presentation of alternative plans will be an analysis of the tradeoffs among them. The tradeoffs will be set forth in explicit terms, including the basis for choosing the recommended plan from among the alternative plans.

SYSTEM OF ACCOUNTS

Section 24. The Council will establish a system of accounts that displays benefits and costs of each plan to the multiobjectives and provides a basis for comparing alternative plans.

(a) The display of beneficial and adverse effects toward each objective will be prepared in such manner that the different levels of achievement to each objective can be readily discerned and compared, indicating the tradeoffs among alternative plans.

(b) For purposes of accounting for the regional development objective, a standard set of regions will be established by the Council. The system of accounts will display the benefits and costs in the region under consideration in relation to the other parts of the Nation. The use of this set of regions will not, however, rule out the use of other regions whose delineations are important in measuring beneficial or adverse effects on specified components of the regional development objective.

COST ALLOCATION, REIMBURSEMENT, AND COST SHARING

Section 25. Cost Allocation.

(a) On the basis of the identification provided for in the system of benefit and cost accounts, an allocation of appropriate costs shall be made when an allocation of costs is required for purposes of establishing reimbursement levels, pricing policies, or cost sharing between the Federal Government and non-Federal interests.

(b) All objectives and components of objectives shall be generally treated comparably in cost allocation.

Section 26. Reimbursement and Cost Sharing. Reimbursement and cost-sharing policies shall be directed generally to the end that identifiable beneficiaries bear an equitable share of costs commensurate with benefits received in full cognizance of the multiobjectives.

FORMULATION OF NATIONAL PROGRAM AND PRIORITIES

Section 27. (a) The policy and principles set forth in this Act apply to alternative plans for individual projects, regions, or river basins. The evaluation, systematic display, and comparison of alternative plans for a project, region, or river basin will be used as the basis for selecting a recommended plan.

(b) A national program for Federal and Federally assisted water and land resource activities will be formulated establishing priorities among recommended plans for projects and river basins or regions. The system of benefit and cost accounts, together with other criteria, such as available budget resources, national policy toward the environment or regional development, and public and private investment alternatives, is intended to provide a basis for formulating such national programs and establishing such priorities.

PROGRAMS AND ACTIVITIES COVERED

Section 28. This Act, and the standards and procedures established pursuant thereto, applies to Federal participation in comprehensive regional or river basin planning of water and land resource development whether carried out—

(a) By river basin commissions established under the Water Resources Planning Act.

(b) By entities performing the functions of a river basin commission, including, but not limited to, such entities as—

(1) Federal-interstate compact commissions;

(2) Federal-State interagency committees;

(3) Federal-State coordinating committees;

(4) Federal-State development commissions;

(5) Lead Federal agency with special authorization for comprehensive planning; and

(6) Coordinated Federal technical and financial assistance to State comprehensive water resource planning.

Section 29. This Act, and the standards and procedures established pursuant thereto, also applies to the following water and land programs, projects, and activities:

(a) *Federal programs and projects:*

(1) Corps of Engineers civil functions;

(2) Bureau of Reclamation projects;

(3) Federally constructed watershed projects;

(4) National recreation areas;

(5) Wild and scenic rivers;

(6) Wetland and estuary projects;

(7) Federal waterfowl refuges; and

(8) Tennessee Valley Authority.

(b) *Federally assisted programs:*

(1) Federal grants to State, interstate, or intrastate entities for planning water and land resources;

(2) Federal assistance to State and local government sponsored watershed programs;

(3) Federal assistance to regional, municipal, and rural waste treatment systems;

(4) Federal assistance to regional, municipal, and rural water supply systems;

(5) Federal assistance to State and local flood plain management;

(6) Federal assistance to State and local programs for management of wetlands, shores, and estuarine areas; and

(7) Federal assistance to State and local development of water-based recreation.

(c) *Federal licensing activities:*

(1) Federal Power Commission licenses that involve or affect water use;

(2) Atomic Energy Commission licenses that involve or affect water use; and

(3) Other Federal licensing activities that involve or affect water use.

IMPLEMENTATION

Section 30. (a) The Water Resources Council will establish standards and procedures pursuant to Section 2(b) of this Act, and through other direction and guidance to affected agencies facilitate efficient conduct of planning activities.

(b) The Council will include in such standards and procedures provision for coordination among Federal and State agencies and among public and private interests affected by water and land resource plans.

(c) The Federal agencies subject to the provisions of this Act will submit their agency procedures to the Council for review as to consistency with this Act and the Council's standards and procedures adopted pursuant thereto.

(d) The Council will specify procedures for public participation in the planning process and for the review and transmission of planning reports to States, Federal agencies, and the Congress. The Council will also provide for review of project studies to determine their relationships to regional and river basin plans and their conformance with the Council's standards and procedures.

(e) The Water Resources Council will facilitate the implementation of the provisions of this Act by fostering the training and development of manpower, the application of mathematical and other planning tools for increased efficiency in planning, and needed research to support the planning efforts.

EFFECT ON EXISTING LAW

Section 31. Section 103 of the Water Resources Planning Act, 79 Stat. 245, 42 U.S.C. 1962a–2, and Section 209 of PL 91–611 are hereby superseded.

Section 32. Except for Section 31, nothing in this Act shall be construed as superseding, modifying, or repealing existing laws applicable to the various Federal agencies which are authorized to develop or participate in the development of water and related land resources or to exercise licensing or regulatory functions in relation thereto, except as required to carry out the provisions of this Act; nor to affect the jurisdiction, powers, or prerogative of the International Joint Commission, United States and Canada, the Permanent Engineering Board and the United States Operating Entity or Entities established pursuant to the Columbia River Basin Treaty, signed at Washington, January 17, 1961, or the International Boundary and Water Commission, United States and Mexico.

Section 33. Pending approval and implementation of the new standards and criteria set forth in this Act by the Water Resources Council, the report of the Special Task Force to the Water Resources Council, dated July 31, 1970, published in Senate Public Works Committee Print No. 92–20, shall be the basis for evaluating water resources projects.

NATIONAL WATER AND RELATED LAND RESOURCES POLICY ACT

A SECTION-BY-SECTION ANALYSIS

Section 1. The short title was chosen to emphasize the broad scope and purpose of the bill and its national importance.

Section 2 declares a national policy that explicitly includes the four objectives recommended by the Task Force, requires identification of alternatives, and states in summary form the scope of activities covered by the bill. This section also directs the Water Resources Council to carry out the policy of the bill by establishing, with the approval of the President, standards and procedures. In this respect the section is intended as a substitute for the present Section 103 of the Water Resource Planning Act and the language and substance of the two Sections is very similar. Section 31 formally makes the substitution.

Section 3 states the four objectives in fuller form than does the earlier policy declaration. This Section also declares the important policy principle of balance, that "no one objective has any inherently greater claim . . . than any other," and that the bill does not imply priorities among the objectives. With the exception of subsection (b), which is based on the "Standards" the language of the Section is substantially the same as that in the "Principles."

Sections 4, 5 and 6 define benefits and costs under each of the four objectives. The language of the Task Force "Principles" report has been slightly modified in the bill to clarify the report's intent with respect to the inclusiveness of the definitions.

Sections 7 through 16 state general evaluation principles with respect to measurement of benefits and costs, price relationship, discount rate, alternatives, period of analysis, scheduling, risk uncertainty, sensitivity analysis, updating plans, and other matters. Except for Section 10 on the discount rate, which is taken from S. Doc. 97, and certain minor adaptations to the bill form, the language of these sections is identical to that in the Task Force "Principles" document.

Sections 17 through 23 are provisions dealing specifically with the formulation and selection of alternative plans that contain varying "mixes" of the components of the multiobjectives. Specification of components of the multiobjectives, evaluation of conditions without the plan, formulation of alternative plans, analysis of alternative plans, reconsideration of specified components of the multiobjectives, and plan selection are covered.

The language of these sections, with only minor modifications, is identical to that of the "Principles," except for subsection 20(g) which is based on the "Standards."

Section 24 directs the Council to establish a system of accounts that displays costs and benefits of each plan in terms of the multiobjectives, and to establish a standard set of regions for accounting for the regional development objectives. The section is practically identical to the "Principles".

Sections 25 and 26 deal with cost allocation, reimbursement, and cost sharing. They are intended to put objectives and components of objectives on a generally comparable basis for cost allocation, and to establish the policy that identifiable beneficiaries should generally pay for benefits received. It is important to note, however, that these sections are qualified by Section 32, and do not purport to change existing statutory rules for cost sharing and reimbursement. The language of these sections is practically identical to that in the "Principles" document.

Section 27 provides for the formulation of a national program for Federal and Federally assisted water and land resource activities.

Sections 28 and 29 define the coverage of the bill in terms of programs and activities affected. It is recognized that the enumerations in Sections 28 and 29, taken from the "Standards" document, adds to the length of the bill. However, it was considered important to be clear and specific on this important point.

Section 30 provides for implementation of the bill, directing the Council to establish standards and procedures pursuant to Section 2(b) of the bill and to take certain other actions to insure implementation of the policies and provisions of the bill. This Section is based on the language of the "Standards" document.

Section 31 states explicitly the effect of the bill in superseding Section 103 of the Water Resources Planning Act and Section 209 of PL 91–611. As mentioned in the commentary on Section 2 above, most of the substance of Section 103 is carried over into this bill in Section 2.

Section 32 is a savings clause modeled upon the language of Section 3(c) of the Water Resources Planning Act. It is intended to make clear that the bill is to be in addition to, rather than in derogation of, other statutory provisions in such acts as:

Appalachian Regional Development Act of 1965 (Public Law 89–4).

Federal Water Project Recreation Act of 1965 (Public Law 89–72).

Water Resources Planning Act of 1965 (Public Law 89–80).

Public Works and Economic Development Act of 1965 (Public Law 89–136).

Water Quality Act of 1965 (Public Law 89–234).

Northeastern Water Supply Study in 1965 (Public Law 89–298).

Clean Water Restoration Act of 1966 (Public Law 89–753).

Department of Transportation Act of 1966 (Public Law 89–760).

Wild and Scenic Rivers Act of 1968 (Public Law 90–542).

National Flood Insurance Act of 1968 (Title XIII, Public Law 90–448).

Estuary Protection Act of 1968 (Public Law 90–454).

National Environmental Policy Act of 1969 (Public Law 91–190).

Environmental Quality Improvement Act of 1970 (Public Law 91–224).

Section 33. This Section provides that pending implementation of the standards and criteria as provided for in Section 30 of the bill, the report of the Council's Special Task Force, Senate Public Works Committee Print No. 92–20, shall be used by the Federal Water Resources Agencies in evaluating water resource projects.

ADDITIONAL COSPONSORS OF BILLS AND JOINT RESOLUTIONS

S. 346

At the request of Mr. PEARSON, the Senator from Tennessee (Mr. BAKER) was added as a cosponsor of S. 346, the Rural Job Development Act.

S. 1307

At the request of Mr. RANDOLPH, the Senator from Texas (Mr. BENTSEN) was added as a cosponsor of S. 1307, to increase employment opportunities for middle-aged and older workers, and for other purposes.

S. 1699

At the request of Mr. MAGNUSON, the Senator from Iowa (Mr. MILLER) and the Senator from Rhode Island (Mr. PELL) were added as cosponsors of S. 1699, the Environmental Financing Act of 1971.

S. 1874

At the request of Mr. MAGNUSON, the Senator from Utah (Mr. MOSS) was added as a cosponsor of S. 1874, to provide for the establishment of projects for the dental health of children, to increase the number of dental auxiliaries, to increase the availability of dental care through efficient use of dental personnel, and for other purposes.

S. 2497

At the request of Mr. WILLIAMS, the Senator from Maryland (Mr. MATHIAS) was added as a cosponsor of S. 2497, the Vietnam Children's Care Agency Act.

S. 2529

At the request of Mr. HRUSKA, the Senator from Kentucky (Mr. COOPER) and the Senator from Arizona (Mr. GOLDWATER) were added as cosponsors of S. 2529, to incorporate Junior Achievement, Inc.

S. 2581

At the request of Mr. MAGNUSON, he was added as a cosponsor of S. 2581, to

require the President to notify the Congress whenever he impounds funds, or authorizes the impounding of funds, and to provide a procedure under which the Senate and House of Representatives may approve the President's action or require the President to cease such action.

S. 2599

At the request of Mr. MAGNUSON, the Senator from Washington (Mr. JACKSON) was added as a cosponsor of S. 2599, to provide for the application of the prohibitions contained in the Sherman Act to the business of organized professional baseball.

SENATE JOINT RESOLUTION 112

At the request of Mr. BROCK, the Senator from Georgia (Mr. GAMBRELL) was added as a cosponsor of Senate Joint Resolution 112, to provide for equal treatment of all children in the matter of school admissions.

SENATE JOINT RESOLUTION 117

At the request of Mr. MCINTYRE, the Senator from New York (Mr. BUCKLEY), the Senator from Idaho (Mr. CHURCH), and the Senator from West Virginia (Mr. RANDOLPH) were added as cosponsors of Senate Joint Resolution 117, requesting the President of the United States to declare the fourth Saturday of each September "National Hunting and Fishing Day."

SENATE JOINT RESOLUTION 125

At the request of Mr. DOLE, the Senator from Nebraska (Mr. HRUSKA), the Senator from Minnesota (Mr. HUMPHREY), the Senator from New York (Mr. JAVITS), the Senator from Maryland (Mr. MATHIAS), the Senator from New Mexico (Mr. MONTOYA), and the Senator from Rhode Island (Mr. PELL) were added as cosponsors of Senate Joint Resolution 125, to designate October 5, 1971, as "The Day of Bread."

SENATE JOINT RESOLUTION 157

At the request of Mr. TALMADGE, the Senator from South Carolina (Mr. HOLLINGS) was added as a cosponsor of Senate Joint Resolution 157, to assure that every schoolchild will receive a free or reduced price lunch as required by section 9 of the National School Lunch Act.

SENATE JOINT RESOLUTION 158

At the request of Mr. WEICKER, the Senator from South Carolina (Mr. THURMOND), and the Senator from Oregon (Mr. HATFIELD) were added as cosponsors of Senate Joint Resolution 158, to declare May 6, 1972 "Clean Up America Day."

MILITARY PROCUREMENT AUTHORIZATIONS, 1972—AMENDMENTS

AMENDMENT NO. 446

(Ordered to be printed and to lie on the table.)

Mr. PROXMIRE submitted an amendment, intended to be proposed by him, to the bill (H.R. 8687) to authorize appropriations during the fiscal year 1972 for procurement of aircraft, missiles, naval vessels, tracked combat vehicles, torpedoes, and other weapons, and research, development, test, and evaluation for the Armed Forces, and to prescribe the authorized personnel strength of the Selected Reserve of each Reserve component of the Armed Forces, and for other purposes.

ADDITIONAL COSPONSORS OF AMENDMENTS

AMENDMENT NO. 438

At the request of Mr. FULBRIGHT, the Senator from South Dakota (Mr. MCGOVERN) was added as a cosponsor of amendment No. 438, to H.R. 8687, the military procurement authorizations bill, 1972.

HEARING SCHEDULED FOR NOVEMBER 15 ON INTERIOR DEPARTMENT'S PROPOSED OIL SHALE LEASING PROGRAM

Mr. JACKSON. Mr. President, the Committee on Interior and Insular Affairs will conduct a 1-day hearing November 15, at 10 a.m. in room 3110 of the New Senate Office Building, to review the proposed oil shale leasing program of the Department of the Interior and to take testimony on S. 2510, a bill to establish a corporation for the development of new energy sources.

The energy requirements of the United States dictate that the Congress must carefully examine the potential of oil shale development as well as all other potential energy sources for supplying the growing energy needs of the Nation. In June of this year, the Department of the Interior announced a proposed program for oil shale leasing. Articles in the trade journals within the last week, however, have noted that there has been little industry interest in the Department's proposed program for oil shale leasing.

The committee will want to review the prospects for the proposed leasing program, the technology for converting oil shale into petroleum products, and the provisions of the proposed leases. Matters of special interest to the committee include the provisions which have been made for protection of the environment, for avoiding monopoly control over the oil shale resources, and for insuring a fair return to the Federal Government for the use of public resources.

The hearing will have a dual purpose. First, it will provide the Minerals, Materials and Fuels Subcommittee, presided over by the Senator from Utah (Mr. Moss), an opportunity to consider S. 2510 as an additional method of investigating the feasibility of commercial development of oil shale resources. Second, pursuant to Senate Resolution 45, the hearing will provide the Interior Committee an ex officio member of the Commerce and Public Works Committees and the Joint Committee on Atomic Energy an opportunity to review the role of federally owned oil shale resources in the context of a National Fuels and Energy Policy.

NOTICE OF HEARINGS OF THE SELECT COMMITTEE ON EQUAL EDUCATIONAL OPPORTUNITY

Mr. MONDALE. Mr. President, in accordance with the requirements of section 11(a) of the Legislative Reorganization Act of 1970, I announce that the Select Committee on Equal Educational Opportunity will hold hearings on October 5, 6, and 7 at 10 a.m. in room 1114 of the New Senate Office Building.

On October 5 the committee will hear the president of the American Federation of Teachers on the subject of educational finance.

On October 6, the committee will hear the school superintendents from five school districts on the need for financial aid for the transportation of pupils.

On October 7, the committee will hear from Profs. Michael Kirst of Stanford University and Stephen Bailey of Syracuse University for Federal aid to disadvantaged children.

ADDITIONAL STATEMENTS

BIRTHDAY CONGRATULATIONS TO SENATOR ELLENDER, PRESIDENT PRO TEMPORE

Mr. ALLOTT. Mr. President, it is a great pleasure to join with other Senators in offering the most heartfelt birthday congratulations to my able friend and colleague, the President pro tempore of the Senate, the distinguished senior Senator from Louisiana, ALLEN J. ELLENDER.

Senator ELLENDER was born during President Benjamin Harrison's administration. He first went into public service in his home State during President Wilson's first term. He has served in the Senate under six Presidents.

All of us who serve with him on the Appropriations Committee are aware of the energy and dedication with which he pursues his many and important Senate duties. We wish him good health and happiness in all his future endeavors.

TRUST TERRITORY OF THE PACIFIC ISLANDS

Mr. BURDICK. Mr. President, one of the most perplexing problems that has faced our relationship with the citizens of the Trust Territory of the Pacific Islands has been the resolution of their long-standing claims resulting from hostilities in those islands during World War II.

It will be recalled that the islands of Truk, Peleliu, Saipan, and Tinian were focal points in the retaking of the Pacific area by U.S. Armed Forces. The indigenous population of those and other islands of Micronesia suffered the loss of personal property and relatives as innocent victims of a war in which they had no direct part. These events took place more than 25 years ago, but the individuals who suffered the losses have yet to be recompensed.

Largely through the efforts of the distinguished Senator from Washington (Mr. JACKSON), who is chairman of the Committee on Interior and Insular Affairs, legislation has been enacted in the 92d Congress to provide for the establishment of the Micronesian Claims Commission, charged with the responsibility of hearing and adjudicating all of the pending Micronesian claims.

In recognition of Senator JACKSON's

major contribution to the enactment of this important legislation, the Mariana Islands District Legislature has adopted a resolution commending him for his efforts. I ask unanimous consent that the resolution, No. 24–1971, be printed in the RECORD.

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

THIRD MARIANA ISLANDS DISTRICT LEGISLATURE—RESOLUTION NO. 24–1971

A resolution relative to expressing sincere gratitude and appreciation to Honorable Henry M. Jackson and Member of the Senate Committee on Interior and Insular Affairs for their favorable support of the "Micronesian Claims Act of 1971"

Whereas, by virtue of the speedy action by the Senate Committee on Interior and Insular Affairs, the "Micronesian Claims Act of 1971" passed by the Congress of the United States in record time; and

Whereas, the signing of Public Law 92–39 by President Nixon on July 11, 1971, will at long last set into motion the machinery to begin resolving a problem that has existed for too long; and

Whereas, a great deal of work by many people has gone into the introduction and passage of the "Micronesian Claims Act of 1971", and we on behalf of the people of the Mariana Islands District, wish to express our sincere gratitude and appreciation to the members of the Senate Committee on Interior and Insular Affairs for their valuable assistance and speedy action;

Now, therefore, be it resolved by the 3rd. Mariana Islands District Legislature that its sincere gratitude and appreciation be and is hereby expressed to Honorable Henry M. Jackson and members of the Senate Committee on Interior and Insular Affairs for their favorable support of the "Micronesian Claims Act of 1971"; and

Be it further resolved that the President certify to and the Legislative Secretary attest the adoption hereof and thereafter transmit copies of the same to the members of the Senate Committee on Interior and Insular Affairs.

SENATOR WINSTON L. PROUTY

Mr. TAFT. Mr. President, I was deeply saddened by the untimely passing of our distinguished colleague Winston L. Prouty.

I was privileged to serve with Win for a brief time on the Committee on Labor and Public Welfare. He was a dedicated and most effective member of that committee. He was a man who knew and deeply understood the pulse of our Nation.

He empathized with the elderly and was instrumental in passing legislation to provide for their own self-respect and social betterment.

For 20 years Win Prouty has quietly championed the causes of the poor, the sick, and the handicapped. He deeply understood and felt the need to open the doors of our educational institutions to the less fortunate.

He led the fight for the 1970 passage of the increase in social security benefits and was studying proposals for national health insurance when death took him.

He was a humanitarian, an outstanding legislator, and a man of the highest character. He will be missed by this body, by those who so greatly benefited by his work, by his home State of Vermont, and by his country.

I will truly miss his wise and dedicated counsel.

Mrs. Taft and I extend our deepest sympathy to his wife Jennette and members of the Prouty family.

GENOCIDE: PRESTIGE ON THE LINE

Mr. PROXMIRE. Mr. President, it seems that few of our governmental institutions have been able to maintain their integrity and high reputation among the people amidst the chaos and confusion of the last few years. But the Senate Foreign Relations Committee is an exception. The committee has earned the respect of concerned citizens across the country for its leadership on the issue of the war, investigating its causes and possible solutions to the conflict.

Last spring the committee acted on another front when it reported the Genocide Convention to the Senate floor with a recommendation that the Senate ratify the convention. Ratification, as well as ending the war, would make an important contribution to peace in the world. In its concluding remarks the Foreign Relations Committee report states:

Genocide has become a word in altogether too common usage.

Indeed, the very act of genocide has become altogether too common in our century.

For this reason, civilized man demands that steps be taken to prevent the crime of genocide from ever occurring again. That, Mr. President, is why it is time for the Senate to ratify the Genocide Convention soon.

At this point I ask unanimous consent to insert the concluding comments of the Foreign Relations Committee report in the RECORD.

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

CONCLUSIONS

Genocide has become a word in altogether too common usage. The committee therefore has been careful in this report to narrow its meaning and not to overstate the scope of the convention. We have been concerned largely with describing what it does not do. We find no substantial merit in the arguments against the convention.

Indeed, there is a note of fear behind most arguments—as if genocide were rampant in the United States and this Nation could not afford to have its actions examined by international organs—as if our Supreme Court would lose its collective mind and make of the treaty something it is not—as if we as a people don't trust ourselves and our society. The rhetoric of the opponents, and to a degree the proponents, has obscured what a modest step the convention represents.

Philosophical, moral, and constitutional questions have been raised which go far beyond this modest step and probe man's relationship to his fellow man and the responsibilities of governments to protect the rights of their citizens. These questions appear inherent in the area of human rights treaties and legislation, and it is good that they are raised, because they serve to lift our sights to what is really at issue here, an attempt to curb the excesses of mankind. As our planet becomes more crowded, man's behavior towards his fellows must be governed by standards ever higher and more humane. This treaty seeks to set a higher standard, of international morality and should be judged on that basis.

This higher plane of viewing the convention is suggested in the following statements of our Presidents:

The words of President Truman in submitting the Genocide Convention in 1949 still hold true:

"By giving its advice and consent to my ratification of this convention, which I urge, the Senate of the United States will demonstrate that the United States is prepared to take effective action on its part to contribute to the establishment of principles of law and justice."

The words of President Kennedy, in submitting three related human rights treaties, also apply:

"The day-to-day unfolding of events makes its ever clearer that our own welfare is interrelated with the rights and freedoms assured the peoples of other nations. * * * There is no society so advanced that it no longer needs periodic recommitment to human rights. The United States cannot afford to renounce responsibility for support of the very fundamentals which distinguish our concept of government from all forms of tyranny."

And finally, the committee concurs with the words of President Nixon:

"I believe we should delay no longer in taking the final convincing step which would reaffirm that the United States remains as strongly opposed to the crime of genocide as ever."

The committee, therefore, earnestly recommends to the Senate that, subject to the understandings and declarations, the Senate give its advice and consent to ratification of the Genocide Convention by an overwhelming vote. Respect for the feelings of mankind, expressed by the 75 ratifications to date, should lead to no less.

HANOI CREDIBILITY NEAR ROCKBOTTOM

Mr. DOLE. Mr. President, recent contradictory statements by the government of Hanoi have once again demonstrated the North Vietnamese total lack of sincerity in regard to achieving meaningful negotiations concerning the release of U.S. prisoners of war.

Nguyen Thanh Le said on September 16 in Paris that conditions for the release of American prisoners being held by the North Vietnamese and the Vietcong were both military and political. This means, the total withdrawal of all U.S. armed forces and the cessation of U.S. support for the present Government in Saigon. These concessions would have to be made to the North Vietnamese Government before any prisoners would be released.

Previous misinterpretations of North Vietnamese spokesmen indicated that U.S. prisoners would be released at a time the United States set a time certain for troop withdrawal have now been dispelled.

It is clear that the North Vietnamese have no intention of reaching any agreement at this point. Their only intent, which is equally clear, is to create frustration and confusion among all those vitally concerned with the welfare of American prisoners of war and missing in action. Their families and loved ones along with the POW's and MIA's are being subjected to this cruel mental anguish for no purpose other than to gain hoped for political advantage for the North Vietnamese Government.

An article by Rowland Evans and Rob-

ert Novak, published in the Washington Post of September 26, 1971, descriptively outlines the recent maneuvering of the North Vietnamese. I ask unanimous consent that the article be printed in the RECORD.

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

HANOI'S WHIPSAW IN PARIS

(By Rowland Evans and Robert Novak)

The whipsaw now being used so effectively by Hanoi to undercut President Nixon's negotiating posture at the Vietnam peace talks in Paris, already near rock-bottom, has now severed the last strand of credibility here in what the Communists seem to be saying in Paris.

Indeed, the deliberately misleading, ambiguous triple-speak emanating from the peace negotiators at Paris, who represent both Hanoi and the Vietcong "provisional government" in South Vietnam, rung a surprising confession of mental anguish from The Washington Post's Jonathan Randal at the Sept. 16 briefing by Hanoi's Ngu-yen Thanh Le.

Pressing Le for an explanation of the stark contradiction between what South Dakota Sen. George McGovern said he had learned about the Communist settlement plan a few days earlier, and what chief Hanoi negotiator Xuan Thuy had said to U.S. Ambassador William Porter on Sept. 16, Randal exclaimed to Le:

"Do you understand why we no longer understand anything? Do you understand the confusion in our minds? Either things are not clear or I am a fool, and if I am a fool I am ready to withdraw from active life."

Randal, The Post's chief correspondent in Paris, is no fool. His mental anguish accurately reflected the growing credibility gap between what the Communists have been telling such unofficial peaceseekers as McGovern, a Democratic presidential candidate, and what they have been telling Porter and the U.S. government.

Ever since the unveiling on July 1 of Hanoi's seven-point peace plan, peace-bloc leaders in the U.S. Senate such as McGovern have been hounding President Nixon to set a date for U.S. troop withdrawals, as demanded by point one of the peace plan. If he would only do that, they proclaim, the Communists would release U.S. prisoners of war in a percentage ratio equal to U.S. troop withdrawal.

Thus, emerging from his own negotiating sessions with Xuan Thuy and Thuy's Vietcong colleagues on Sept. 10 and 11, McGovern said: "There is no doubt in my mind whatsoever that our prisoners will be released if we withdraw our forces. Mr. Xuan Thuy . . . confirms the July 7 New York Times statement by Mr. Le Duc Tho (a Hanoi politburo member) that such an arrangement can be carried out before consideration of a new government in Saigon"—which is demand number two of the Communist peace plan.

It has been the official U.S. position since July 1 that Hanoi in fact was demanding U.S. agreement on *both* points one and two as preconditions for the release of American POWs. But always, in *ex parte* negotiations with U.S. politicians and interviews with the press, the Communists had gone far out of their way to encourage the view that troop withdrawals alone would lead to prisoner release. By seizing on just such wisps of encouragement, as McGovern did in his Sept. 12 press conference and many other politicians have similarly done, unofficial negotiators have led the American people to believe that Mr. Nixon was deliberately stalling the July 1 Communist peace overture.

Thus, McGovern said on Sept. 13: "It is not the other side (the Communists) which links point one and point two in the seven-point program. Those two points . . . are linked by the Nixon administration but not by the (Communist) delegates with whom we discussed this matter yesterday."

That was Sept. 12. Just four days later, reporter Randal made his confession of mental anguish. Its root cause was Nguyen Thanh Lee's flat assertion in the press briefing: "There are two fundamental problems: the military (withdrawal of U.S. troops) and the political (an end of U.S. support for the present government in Saigon), which *are tied to one another.*"

In other words, no prisoner release until Mr. Nixon (1) sets a date for total withdrawal and (2) agrees publicly to end U.S. support for the present government in Saigon. That's not what McGovern thought he was told, but it stands as the official Communist position until the whipsawing starts on something else.

TRIBUTE TO BERT LANCE, DIRECTOR, GEORGIA HIGHWAY DEPARTMENT

Mr. GAMBRELL. Mr. President, Bert Lance, the director of the Georgia Highway Department, was recently the subject of a fine editorial written by Hubert Lee, editor of the outstanding Southern business review Dixie Business. Mr. Lance is a devoted son of our State, a dedicated public servant, and a close personal friend of mine. I ask unanimous consent that the editorial be printed in the RECORD.

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

HIGHWAY DIRECTOR

In the March 1937 issue our front cover was devoted to the feature:

Story of Georgia's School Superintendent By T. J. Lance, President of Young Harris College.

It featured the late Dr. W. D. Collins.

On the cover of the November issue, I featured the Georgia Highway Department.

Jim Gillis was a member.

Old memories came back when Gov. Jimmy Carter picked Dr. Jack Lance's son Bert Lance as director of Georgia Highway Board after my friend Jim Gillis resigned.

Young Harris was also in the news when W. O. DuVall received the Medallion.

Bert Lance joined the Calhoun National Bank in 1951 and was President when Governor asked him to head Highway.

He is a member of the Calhoun Rotary Club, where in 1954 I was privileged to install Editor J. Roy McGinty in the South's "Hall of Fame for the Living."

Bert was born in Gainesville, Ga. June 3, 1931, the son of a great educator, Dr. T. J. and Annie Rose Erwin Lance.

He attended Emory University, U. of Ga. School of Banking of the South at LSU and Stonier Graduate School of Banking at Rutgers.

DIRECTORATES

He is a director of Astro Dye Works, Inc., Edward Lacey Mills, Calhoun Chemical and Coating Co., Crown Crafts, Inc. Modern Fibers, Inc., Shaheen Carpet Mills Multi-Developer, Inc. and Tice Yarns, Inc.

In 1950, he married Labelle David. They have four sons, Thomas B. Lance, Jr., David Jackson, Stuart Austin, and Claude Beverly.

Bert is a leader in church, civic, educational and scouting activities.

He is a member of Sigma Chi, Gridiron Secret Society, Young Presidents', Georgia State C. of C., Atlanta Athletic Club, Atlanta Commerce, Coosa Country, Dalton County among many.

He is second vice president of the Georgia Bankers Association and is one of the most respected and liked bankers I know.

One of the first things the Highway Board did was to pass four measures to aid city road building.

"It is a new day . . . a day some of you board members have been looking forward to for a long time," Lance said.

Board members Alex Smith, of Atlanta and Jack Embry, of Decatur, were happy.

We are proud of Bert Lance and wish him all the best.

THE NEED TO KEEP AMERICA STRONG

Mr. DOMINICK. Mr. President, recently, Mr. Willard F. Rockwell, Jr., chairman of the board and chief executive officer of North American Rockwell Corp., spoke before the World Affairs Council of Los Angeles on the subject of the need to keep America strong. In his speech he emphasizes the shocking figures on America's retreat to second-class status.

As we proceed with the debate on the procurement authorization bill, it is particularly appropriate that Mr. Rockwell's remarks be brought to the attention of the Senate, as they emphasize once again the points previously made by Senator STENNIS, Senator BUCKLEY, Senator BROCK, myself, and others that no foreign policy can work without credible muscle to back it.

Mr. President, I ask unanimous consent that Mr. Rockwell's remarks be printed in the RECORD.

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

NATIONAL DEFENSE: KEY TO FUTURE PEACE

(By Willard F. Rockwell, Jr.)

Ladies and Gentlemen,

It was just four weeks ago that President Nixon, speaking in a time of crisis, said, "The United States is the strongest economic country in the world. We intend to keep it that way."

No one disputed that statement.

We are the strongest economic power in the world, and we are going to continue in that position.

But speak of national defense, and it's a different story.

This country's military prowess is slipping into a gray zone, surrounded by a sea of unfavorable statistics. In national defense we're no longer first. And we're reluctant to admit that we're Number Two when compared to the military strength of the Soviet Union.

Recently Senator James Buckley summed up the background for that downward transition in these words: "Since 1965 the Soviet Union has launched and sustained a truly extraordinary increase and modernization of every important area of its strategic forces."

"The United States," the Senator continued, "is rapidly reaching a point in the nonstrategic areas where we will soon no longer have the military capacity to back up our foreign policy decisions." End quote.

The Senator's words can't be dismissed as a local observation for home town consumption. Impartial observers are now reporting that the scales are tilting against America in world military power.

The International Institute for Strategic Studies announced two weeks ago in London that the Soviet total of intercontinental ballistic missiles is now one thousand five hundred and ten as compared to one thousand and fifty-four for the United States.

That was just part of the statistics the Institute furnished.

Military manpower in the United States now stands at 2.7 million compared with a peak figure of more than 3.5 million in 1968.

Since 1965, however, the number of men in the Soviet armed forces has steadily increased from 3.1 million to almost 3.4 million.

Around the entire world the Institute reports on military activity of significance to the United States.

Defense budgets increased in all but a few countries—and one of these few countries was the United States.

The eight Communist Warsaw Pact countries increased their defense spending, and during the year past those countries increased their numerical superiority over NATO forces.

Even China was in the upward surge. That country, according to the Institute report, has continued to improve its military production in both quality and quantity. Its first nuclear submarine is under construction.

Gentlemen as responsible Americans, we have a duty to speak out on this danger threatening the safety and the future of America.

We have a duty to get involved.

The kind of a military establishment we should have, its strength and effectiveness, and its cost are major problems that concern all of us.

I don't believe that grave warnings from responsible leaders should be shrugged off. And the gravest of all was sounded some months ago by President Nixon's Blue Ribbon Defense Panel, and I quote:

"It has become increasingly clear that if observable trends continue, the U.S. will become a second-rate power incapable of assuring the future security and freedom of its people." End Quote.

Strangely enough there are some people in this country who are alarmed, not at the danger of national insecurity, but at the decibel count in the warning itself.

Recently a leading newspaper cautioned the President to speak softly when recounting the dangers of Soviet military might, lest he lose credibility with Americans against the time when he would really want to prod the nation into taking adequate defensive steps.

Speaking softly doesn't assure credibility. All of us know the river of words both at home and abroad that preceded the drastic economic measures the President was forced to take last month. When the inevitable happened, we still couldn't believe that the economists meant what they were saying all along.

Soft words aren't going to be the lever that will stop the slide of our military effectiveness.

It's going to take drastic action by our legislators and a willingness by the American people to accept the spending of large sums of money.

Let me give you some facts from a parallel experience when American industry tried the "quiet-words-of-warning" approach in alerting this nation to our global trade problems during the past decade.

For years we warned about our declining world trade position in ball and roller bearings, textile machinery, sewing machines, phonographs, tape recorders, radios and televisions, and automobiles.

Who listened?

Who listened to the warnings that someday most radios and black and white televisions sold in this country would be imported?

After ten years, here are the facts: foreign plants make 91 percent of the radios sold in the U.S. They make 51 percent of the black-and-white TV sets; and they make almost 18 percent of the color sets.

Who listened when the first warnings were made that foreign textile machinery and textiles were a threat?

A depressed American textile machinery industry today is confronted by the fact that over 70 percent of all the new knitting machinery sold in this country in the last few years has come from abroad.

Who listened to the admonitions that those "funny little foreign cars" someday wouldn't be so funny to unemployed American auto workers?

This year approximately one million six hundred thousand foreign cars will be sold in America. That represents four hundred thousand non-existent American jobs.

That was industry's experience with the don't-rock-the-boat approach.

What's going to be the nation's experience in the realm of strategic defense? How long are we going to be passive spectators as our military establishment slips through the gray area into the Number Two position?

Gentlemen, it was the writer Max Lerner who said, "History is written by the survivors."

This country is going to survive. The question is, what kind of history are we going to write?

If we follow the admonition of the newspaper I mentioned, not to upset the people with depressing statistics on Soviet military might—then I'm afraid the day will come when we'll be standing on the docks of San Francisco waiting for our latest shipment of military fighter planes inbound from Japan.

We'll be over in Hoboken, checking off our military transport planes as they're shipped in from France.

We'll be accepting delivery of our tanks hot off a production line in Germany.

Because that's the trend.

And it's coming about because there are elements in this country that seem dedicated to the dismantling of a great cooperative effort, the teamwork of our military leaders and American industry.

I don't know how the past twenty-five years of cooperation between American industry and the military will finally be equated.

But I do know, during that period, this country was able to do something denied a great many countries. America was able to plan for the future without the restraint of threatening nations. We were challenged once—in 1962—and we won the showdown of military might, the final, decisive word in foreign policy.

That's no longer true. Our military establishment is deteriorating and the situation is getting worse. As Senator Buckley said, we may no longer have the military capacity to back up our foreign policy decisions.

In the words of Admiral Elmo R. Zumwalt, Chief of Naval Operations, "Our ship construction has declined. Go out and look at our ships—old tin cans and cruisers built in World War II. See for yourself how patched up they are."

And Lieutenant General William E. DePuy, assistant vice chief of staff of the Army, in a Life Magazine interview said, "Aside from Vietnam we can't put a full-strength corps in the field. We're so short of money we have hundreds of trucks on blocks because we can't afford to keep them running."

As for the Air Force, the Chief of Staff, General John R. Ryan, sums up its need in one word, "Modernization."

And Dr. John S. Foster, director of defense research and engineering, paints a revealing picture with this one sentence, "The B–52s are about 17 years old and they'll be more than 25 years old before we can replace them with the B–1 bomber."

Gentlemen, in 1950, would you have risked the defense of the nation on a fleet of aircraft built in 1925?

Do you realize that the average ship of the U.S. Navy is equivalent, in age, to the old four-stacker destroyers we gave away to Britain in 1940?

The deterioration has been headlined as "Our Four-Star Military Mess."

What's the cause?

It could perhaps be expressed in one word—disappointment.

Disappointed Americans increasingly perceive the war as a stumbling block to tackling the problems confronting us at home.

Because of that disappointment some Americans have pointed an accusing finger at American industry—at least that part of it visibly engaged in major Department of Defense contract efforts.

It's probably no exaggeration to say that had we been successful in "winning the war in Vietnam" there would have been no strident opponents of the so-called military complex.

And there would not exist in this country today a cult that is, advertently or inadvertently, sapping the strength of America. It's the old cry of a "profitable war".

Actually the war in Vietnam has been just as much a dragging burden on business as it has been for all of America.

What are the facts?

The American economy, according to the New York Times was on the rise prior to our country's escalated presence in Indochina, back in 1965.

From that point on, the economy stopped growing and began to turn downward.

In 1965 we were nearing full employment. But Vietnam bred inflation, and the Times said: "Coming on top of a fully employed economy, the war deprived America of resources, both human and material, needed for housing, education and other social expenditures and worsened the economic lot of most businessmen and workers."

The Times also quoted an analysis by Professor Robert Eisner of Northwestern University which showed how costly and "unprofitable" the Vietnam War has been to business—a loss of approximately 113 billion dollars in five years. In addition, the men who were conscripted would have earned $82.5 billion more had they not gone to war. Their presence at home would have been that much more of a market for business.

Figures presented by the Times showed that corporate profits fell by 16.8 percent between 1965 and 1970 while in the five previous years they had risen by 61.2 percent.

American industry doesn't need war to prosper.

Industrial America has achieved its greatness while standing on its own two feet. It has served the defense effort of this country, and it has served it well—but it has not been dependent upon it.

America's industrial greatness is in its buildings, its machinery, its highway and transportation systems. But most of all its greatness centers on capabilities and skills in a hundred thousand manufacturing plants in every state of the Union.

America's strength, spelled out in Gross National Product, is in wealth born of production and creativity, more than a trillion dollars worth.

Only four percent of the wealth resulting from that gigantic, nation-wide effort goes for the procurement of arms.

By contrast, Communist China, the country on President Nixon's next international itinerary, spends twelve percent of its gross national product on armaments.

Britain, with all her economic woes, manages to contribute six percent of her Gross National Product to defense. West Germany and France contribute four percent to theirs.

On the other hand, when you look at that part of the world where most of the adversaries and potential adversaries are located, you get a strikingly different picture. The Communist World countries devote very large shares of their Gross National Product to production of armaments. The Soviet Union, for example, budgets fifteen percent to twenty percent.

And the rest of the Communist bloc, from

Pyongyang and Hanoi to Tirana, Prague, and Havana, all devote to armaments upwards of 10 percent or more of their Gross National Product, considerably more than we do in the United States.

Yet so clouded at times has the atmosphere been with ridiculous misrepresentations that even the most knowledgeable people have lost their perspective.

A national news magazine said that 21 percent of the nation's blue-collar workers and 16 percent of its white-collar workers "rely," and I quote, "on military spending."

The facts are quite different. Instead of 32 million of our work force involved in defense-related industry, 2.2 million are so engaged!

That means less than 3 percent of our 79 million workers are engaged in defense-related industries.

And those 2.2 million Americans responsible for supplying the artillery, for fashioning the aircraft, and for building the naval ships aren't walled off in isolated, monolithic areas. They're part and parcel of industrial America. There is *no* distinction.

Defense Department contracts and subcontracts are spread among thirty-five thousand prime contractors and two hundred thousand suppliers and subcontractors in every part of this country.

If I can give my company as an example, at North American Rockwell our defense contracts are supported by more than seven thousand suppliers. Every state in the Union, without exception, contributes in some measure to the fulfillment of our Department of Defense contracts.

The strident opponents of the military industrial cooperation haven't hesitated to question the integrity of our national leaders.

The concern for the defense of America among our legislators should be and is a matter of their own deep personal conviction. Nothing, and I repeat nothing, but the safety of America should influence the voting of men who have such grave responsibilities.

And that is exactly what is happening in Washington.

The incidental location of defense businesses in the constituencies of Senators and Representatives has not influenced their voting records.

Several of the most outstanding spokesmen for reductions in military expenditures and for dovish positions on defense and foreign policy came from areas with very large defense-related contracts!

The states with the biggest defense contracts within their borders have some of the most ardent doves representing them in Congress.

This subject was recently reviewed by the Congressional Quarterly Almanac.

In its summation, the Congressional Quarterly said that those who oppose or support defense spending can only be separated according to their basic views, or to their basic conservative or liberal points of view, and *not* according to the fact of whether or not defense installations or defense plants are located on the home turf.

The integrity of our legislative leaders is beyond question. America is safe in their judgments on our national defense needs.

Events are changing rapidly. New and more reasoned perspectives are coming to the fore in America.

I believe the mood of the country is changing.

I believe there is a better understanding of just what our country's tradition of military and industrial cooperation is all about.

I believe Americans know how urgent it is to defend this cooperation against misguided, misinformed or frankly deliberate paranoic criticism.

I believe that more and more we'll be hearing sober appraisals and recommendations such as those of Senator Buckley.

"I submit," he said, "that as a starter we must proceed with accelerated programs to complete the development and deployment of such advanced strategic weapons as the existing programs for the Air Force B–1 bomber.

"We must also develop the Navy's undersea long-range missile systems.

"At the same time, we must support a much more serious level of research and development into ways of reducing United States vulnerability to strategic attack.

"To continue to fall behind," the Senator concluded, "is to invite a technological Pearl Harbor."

Gentlemen, a few hours ago, we flew over from the East Coast.

As the plane lifted across the San Bernardino mountains to the Los Angeles basin, we could see the entire cosmopolis spreading in panorama. It's one of the most breathtaking sights in all the world.

We could see a great slice of America—the schools, the universities, the military installations, the aircraft factories, the Navy ships off Long Beach, the homes that spread from Riverside to the ocean and the rocket engine sites beyond Canoga Park.

And that was only one city, in only one state of all America.

Multiply that sight a thousand times, and you have a human and technical treasure whose equal has never before been assembled on the face of this earth.

It's our responsibility to safeguard that national treasure.

Gentlemen, we can be once again, the greatest strategic power in the world.

We *can* pull out of this downhill, second-place, gray area.

We can be the survivors who will write the history of this coming decade.

We can, once again, rebuild a defense shield that will enable us to plan for a peaceful future in a less than tranquil world.

Thank you.

MAGAZINES PUBLISHED BY THE DEFENSE DEPARTMENT

Mr. FULBRIGHT. Mr. President, there has come to my attention an interesting article by Bernardine M. Kopec in the August 1971 Armed Forces Journal entitled "The DOD Magazine Empire."

The article contains a wealth of little known facts and figures about the vast number of magazines published by the Defense Establishment. The author, after 2 years of research—although unable to pry all of the pertinent facts out of the Pentagon—estimates that at least 371 different magazines are published by DOD and the various services at a total cost of over 57 million. The article says:

But no one in the Pentagon has bothered to count the magazines, much less add up their cost.

Little, of any, of the costs are charged against either the public affairs budget or the "command information" program according to the article, thus causing a vast understatement of the costs of both the public and the internal information programs. Only 2 percent of the circulation of the magazines is paid, the author found, and "the few subscribers who do pay to read what DOD prints simply add to the taxpayers overall bill" by getting heavily subsidized subscription rates.

Mr. President, at long last the Pentagon's public relations apparatus is being given closer scrutiny in Congress. This article shows that the DOD publishing business needs to be given a hard look by the appropriate committees of Congress. When the Government is facing a deficit of $28 billion-plus for this fiscal year, it makes little sense to allow this kind of waste of the taxpayers' money to continue.

I ask unanimous consent to have the article printed in the RECORD.

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

THE DOD MAGAZINE EMPIRE

(By Bernardine M. Kopec)

No one in the Pentagon says he knows how many magazines the defense establishment prints at taxpayers' expense. The total number, and their cost, seems to be a better kept secret than the "Pentagon Papers" were, even before *The New York Times* got hold of them.

Would you believe 25? 50? 75? 100?

How about 371?

That's how many magazines we may be talking about. Magazines—not pamphlets, technical manuals, regulations, or phone directories: magazines.

An exhaustive Journal survey, underway for more than two years, shows just how much our national military strategy seems to hinge on the printed word:

The Army, Navy, and Air Force publish 78 magazines for Service-wide distribution, according to their own data compiled for The Journal;

Department of Defense officials, queried repeatedly since last November, claim they are unable to provide any such list of the additional magazines which it publishes for DoD-wide circulation (the list was still being "compiled" at Journal presstime)—but The Journal can name at least seven;

Thus, the total number of Pentagon-sponsored magazines is at least 85.

That's just the tip of the iceberg.

Not quite as visible are so-called "field publications"—magazines, not pamphlets, technical manuals, etc.—published by subordinate commands:

The Navy says it has 91;

Army and Air Force officials say they don't keep track;

But if these two services have the same ratio of field-to-headquarters periodicals as the Navy does, the DoD magazine empire includes 85 headquarters and 286 field magazines—a total of 371. The stack is about three feet high.

Official figures suggest that the tab is modest.

The best cost estimates available from the Pentagon cover "printing" expenses for the Service headquarters periodicals—$3.567-million a year. (The Navy did not have the cost for six of its 27 Pentagon-sponsored magazines.)

Only the Army had any estimate of "editorial" costs—$879,134 for 13 Service-wide magazines.

None of the Services could estimate such "overhead" costs as office space, telephone or travel expenses, employee fringe and retirement costs, or administrative expenses.

However, a conservative Journal extrapolation from the few Service figures available, combined with overhead experience from a 228-magazine cross-section of the nation's business press, shows that DoD's magazine empire doesn't come cheap:

For just the 85 headquarters magazines, the bill is over $13-million a year.

For all 371 magazines, the tab would be more like $57-million.

The $57-million estimate is intriguing—since DoD claims that it spends only about $42-million a year for its entire public affairs program, *including* the "command information" activities under which many, if not most, of the 371 magazines are sponsored.

DoD's magazine empire is no small potatoes on other counts as well: if the 371-magazine estimate is valid, military publishers are turning out better than:

Eight times as many magazines as the nation's biggest trade magazine publisher (Cahners Publishing, with 46 titles—Modern Railroads, Boating Industry, Traffic Management, etc.).

Sixteen times as many titles as the nation's largest publisher of consumer magazines (Davis Publications, with 23 titles—Ellery Queen's Mystery Magazine, Hunting Guide, Science & Mechanics, etc.).

The tighter DoD's budget gets, the more the Pentagon seems to rely on a Maginot Line of magazines to defend the nation:

In FY 67, the Navy's printing bill, just for its headquarters magazines, ran $632,272; in FY 70, it totaled $855,021—an increase of 25% in three years.

Last November, President Nixon sent a notice to all federal agencies directing them to eliminate unnecessary public relations programs; in March, the Army announced the publication of two new magazines.

Two years ago the Navy announced that it would have an "intensive" review of "department periodicals," weeding out those that did not come up to standards or contribute efficiently to "completion of mission." The Navy has abandoned the plan. Limited time, money, and people made it easier, apparently, just to go on publishing.

Three years ago, the authoritative Ayer's Standard Periodical Directory listed 80 DoD publications; its latest edition shows 110 (some are not magazines; Ayer's lists include the Pentagon's quarterly telephone directory—not included in the Journal survey—and several DoD/Service reports published either on an annual or an irregular basis). Compared with this 37½% increase, the Pentagon's work force has been cut back 13% in the same period.

The Pentagon's penchant for magazines contrasts dramatically with other federal agencies: the State Department doesn't publish any. (Its four quarterly "periodicals" are a phone directory, foreign service list, diplomatic list, and biographical register of top-echelon staffers. The Department of Defense has comparable publications, but they are not included in the Journal's tabulation of DoD's 371 magazines.)

Other key findings in the Journal survey show that:

Distribution of many of the DoD-sponsored magazines is virtually unlimited. *The Naval War College Review*, a slick quarterly "field" publication printed with appropriated funds (taxpayer money), has a circulation of 13,800 (up 72% from 8,000 three years ago); if every officer entitled to get a free copy wanted one, the magazine's circulation would exceed 59,000. The example is not untypical.

Only about 2% of the magazines' circulation is paid.

There is no estimate available of whether or not DoD's hundreds of magazines—with an average circulation per issue approaching 50,000—are even read.

The few subscribers who do pay to read what DoD prints simply add to the taxpayer's overall bill: in one typical instance, a Service magazine has a printing cost alone amounting to $15 a year for its free circulation list. When editorial and overhead costs are included, the cost tops $25 a year. You can buy a year's subscription from the Government Printing Office for $3 a year. Earlier this year, the same magazine—it calls itself a "newsletter"—published a 12-page special anniversary issue, not including a four-color cover: that's exactly the size of *Playboy's* mammoth August issue! (The extra cost of the special anniversary issue is *not* included in the $25-per-year estimate given above.)

There are no standards or criteria laid down by Service or DoD headquarters for whether or not a subordinate command can or should publish its own magazine, at taxpayers' expense.

Many of the magazines compete both in editorial content and in circulation with Service association magazines printed by nonprofit institutions (the Army publishes its monthly *Aviation Digest*, competing with *Army Aviation*, published by the Army Aviation Association of America; ironically, the Director of Army Aviation contributes a monthly article to the latter, but not to the Army's own house organ.)

If America's soldiers, sailors, and airmen have any reading time left over after culling through DoD's magazine empire, they can turn to 1,038 newspapers published by the Pentagon at taxpayers' expense (or by contract with civilian publishers who can count on a special DoD group for canned news items and even canned editorials: one New York publisher makes a bundle printing 153 such newspapers every week; they are distributed free for him at Service posts, camps, and stations and carry as much commercial advertising as he can cram into them).

Ironically, DoD's magazine empire is exploding at a time when civilian and military manpower in the Department of Defense is decreasing. It seems that no effort is being made to proportionately reduce the Pentagon's press run. JOURNAL research surfaced only one instance when a publication was discontinued: the *Digest of U.S. Naval Aviation Weapons Systems*, a 56-page monthly which suspended publication last year. The Army, however, has overcompensated for the loss of one Navy magazine: as recently as March, it announced in *one* month the publication of *two* new magazines—*Parameters* and *The Engineer*. These two titles, both "field publications," are not included in the Army's official listing of its 13 Service-wide magazines.

In recent months increasing attention has been focused on government expenditures for information programs. Last November President Nixon sent a notice to all federal agencies telling them to eliminate "self-seeking propaganda and public relations programs." The Office of Management and Budget (OMB) was to follow up on this directive and make sure cutbacks were reflected in departments' budget requests for FY 72.

More recently, the CBS airing of "The Selling of the Pentagon" criticized the Defense Department's public affairs activities. The program is easily the most critical examination to date of the Pentagon's *external* information programs.

However, in the rush to examine public relations activities aimed at the civilian population, DoD *internal* information programs are almost always overlooked. The Department of Defense and the individual Services all direct a steady stream of literature to their personnel even ignoring the countless bulletins, regulations, directives, and technical manuals issued the number of magazines aimed at the Serviceman, and paid with taxpayer money, is growing at a malthusian rate.

The Journal's recent survey of DoD publications is limited to magazines—defined in Navy regulations as "any publication issued twice or more often in any 12-month period with continuing policy as to format, specifications, content, and purpose." The samples ranged from four-page mimeographed newsletters (*Army Personnel Letter, WAF Newsletter*) to slick magazines wrapped in four-color covers (*Airman, Soldiers*).

PROLIFERATION PROBLEM

No single office—DoD, Budget Bureau, congressional committees, Government Printing Office—seems to have a complete picture of the vast scope of the Pentagon's publishing empire, which is spread out among a myriad of different commands and agencies.

During the Johnson Administration, the Bureau of the Budget, which must approve any new government-funded magazine, directed an extensive examination of all government publications. Within six months 500 pamphlets printed by various federal agencies were dropped—at a $3-million savings. But a Budget bureau spokesman told The Journal: "Within a short time, there were just as many publications. There is no question publications have a way of proliferating."

The General Accounting Office has just undertaken its own survey of military publications, but won't discuss it. GAO is likely to be stunned—not only by the vastness of the Pentagon's publishing business, but also by the miniscule, fragmented amount of information available from those who oversee Pentagon spending.

THE NUMBERS ADD UP, UP, AND UP

The tip of the DoD magazine iceberg includes five weeklies/bi-weeklies, 47 monthlies/bi-monthlies, and 33 quarterlies. This 85-magazine total is compiled from: (1) official lists provided by the three Services; (2) the Standard Periodical Directory, a yearly compilation of publications (magazines, annuals, directories, etc.) by subject matter; and (3) Journal research.

According to statistics provided by the Army, Navy, and Air Force, the breakdown by Service is as follows: Army, 13 magazines (excluding the two new publications, *Parameters* and *The Engineer*), the Navy, 27, and the Air Force, 38.

Despite repeated requests over a period of several months, Pentagon officials could not provide a list of magazines published by OSD for all its personnel. The most recent Journal inquiry brought the response that such numbers are "currently being compiled," but it would be "some time" before they were ready. But a simple glance at Government Printing Office racks shows seven department-wide magazines, such as *Commanders Digest* and *Defense Management Journal*.

The average circulation per issue runs from 33,230 for Air Force publications to 135,765 for the Army. Average yearly printing and distribution costs vary from $20,814 per Air Force magazine to $147,775 per Army magazine.

With few exceptions, circulation and cost data are not available for magazines published by subordinate commands, military units in Vietnam, and Service schools. In fact, only the Navy bothers to keep track of their numbers—91. If this approximate 1-to-3 headquarters-to-field ratio holds true for the other Services and DoD, an additional 286 magazines are printed by field activities.

Official cost figures provided by the three military Services show a printing and distribution cost for 72 magazines at over $3.5-million. Extrapolating from these numbers, the printing bill alone for all 371 magazines published by DoD would run to more than $18-million.

Editorial salaries take an even bigger chunk out of any magazine's operating budget. Only the Army provides editorial costs for its 13 Service-wide magazines. Two years ago, in FY 70, this totaled $879,134. Extrapolating, one arrives at $1,758,268 for the Navy (double the number of magazines, hence double editorial costs), and $2,637,402 for the Air Force (almost three times as many magazines as the Army). If these calculations are correct, total editorial costs for all of DoD's 371 magazines would run more than $25-million. Navy and Air Force editorial estimates may be an overestimation, since some of their magazines share editorial staffs and are small newsletters. However, the estimate may be low, given recent federal salary increases.

Finally, there are the not inconsiderable "overhead" costs to cover office rental, equipment and supplies, telephone service, and employee fringe benefits. In 1968, American Business Press surveyed 228 trade publications and found that these costs ran 33% of printing and editorial costs combined. On this basis, overhead for DoD's magazine em-

pire runs about $14-million a year. The total bill? $57.82-million a year.

But no one in the Pentagon has bothered to count the magazines, much less add up their cost.

THE NATION'S NO. 1 PUBLISHER

DoD's magazine empire is huge by any standard. The State Department, whose civilian personnel are scattered worldwide performing duties almost as diverse DoD personnel, lists only four periodicals: a diplomatic list, a foreign service list, a telephone directory, and a biographical register of top-echelon staffers. All are quarterlies. There are no personnel newsletters, retirement news, or safety tips, comparable to the Service publications. Moreover, the State Department publications can hardly be regarded as "magazines" by the Navy definition stated previously. The Pentagon's phone directory, senior officer lists, and biographical registers are not included in the DoD magazine count estimated here.

Davis Publications and Cahners Company, the nation's largest publishers of consumer and trade magazines, respectively, are small-time operators compared with the Pentagon's publishing house.

Some of DoD's magazines are in direct competition with commercial publications: *Army Aviation Digest* with *Army Aviation, Soldiers* with *Army*, for example. Most of the military associations (Navy League, Association of the U.S. Army, Air Force Association) publish high-quality, general information magazines for members and interested subscribers. If DoD suspended such "duplicate" publications, Service personnel could opt to subscribe to the civilian publication—if they felt the contents were that necessary or entertaining.

DoD's military magazines run the gamut from four-page newsletters with shoestring budgets ($100 for 2,000 copies of the Air Force's four-page quarterly *Perspective*) to the three Services' mass circulation magazines comparable in a very general sense to *Look* and *Life*. Aimed at all members (including ROTC and reserve components) of the Army, Navy, and Air Force, *Soldiers* (formerly *Army Digest*), *All Hands*, and *Airman* try to provide information in an entertaining way, hopefully improving morale and retention rates. There are the more elite "thinking man's" magazines (*Air University Review, Naval War College Review, Military Review*) that serve as an outlet for the ideas of more senior personnel. Finally, each Service publishes magazines for various specialist fields such as retired or Reserve personnel, doctors, lawyers, engineers, and chaplains.

The different Service corps have traditionally expended much effort to instill a separate identity in their members. An individual is not a doctor, but a Navy doctor; not any engineer, but an Army engineer; not "just" a pilot, but an Air Force pilot. Pentagon officials argue that magazines are a relatively inexpensive but effective way of raising morale and promoting Service pride.

EDITORIAL MEAT, OR PABLUM?

Perhaps the only safe thing to note about the editorial content of DoD's magazines is that it won't win any contest for controversial or investigative reporting—with the possible exception of the war college quarterlies. Much of their content is a bland promulgation of Service policy or explanation of new regulations. Human interest stories in the field publications provide the most colorful reading matter.

This fetish to print only "safe" news is not new to the Defense Department's magazine empire. In 1863 Lincoln's Secretary of War, Edwin M. Stanton, learned that James Russell Lowell and other patriots were planning to publish an independent military journal (our own, then known as the Army and Navy Journal); he tried to forestall its publication by announcing that he would publish instead an official Army and Navy Gazette. His editorial product left its readers cold, and the magazine ceased publication after about a year.

DOD'S "IMPOSSIBLE DREAM"?

Initially, there is probably justification for each magazine that is begun. But this *raison d'etre* doesn't seem to get reviewed later. It seems that once a publication is established, it becomes easier to expand operations, rather than to maintain the magazine at its initial size or to eliminate it when no longer needed. One DoD source admitted that consolidating or cutting back magazines can be an "impossible dream."

Spokesmen for each Service admitted that in most cases the existence of *field* magazines is controlled almost entirely at the local level. The commanding officer decides if he wants a magazine and how he is willing to pay for it. Service officials contacted by The Journal could cite no official regulations that establish any criteria, for whether or not a new publication is justified. The frequency, circulation, and color and paper costs of these magazines seem to be limited only by the money a commander is willing to divert from other budgets. As one Navy official puts it: "Anyone can publish a magazine, if he has the money."

With military personnel spread all over the globe, Service spokesmen argue that "something" is needed to keep the various special interest groups informed of developments in their field. More personal forms of communication are impractical; officially worded directives may be ignored. Magazines, say DoD officials, may be the most economical means of "getting the word out."

A comparison of Army, Navy, and Air Force magazines indicates some striking incongruities. For example, both the Navy and Air Force publish a magazine for their Chaplains, *Navy Chaplain Bulletin* (16-page quarterly) and AF's *Chaplain Newsletter* (four pages 10 times a year); the Army does not. If magazines *are* necessary to maintain the high morale of Navy and Air Force chaplains, GAO may find it difficult to understand why a similar publication is *not* needed for the Army Chaplain Corps.

There are suprising differences between Services for production costs of similar magazines. The Navy publishes the *Navy Supply Corps Newsletter* for its 5,300 Supply Corps officers. *Up-date* serves the Army's 6,071 Quartermaster Corps officers.

A one-woman, part-time staff produces *Up-date* on an irregular basis at the Army Quartermaster School, Ft Lee, Va. (although plans are now underway to change the typewritten, 20-page newsletter into a quarterly). Contrast *Up-date* with the monthly *Navy Supply Corps Newsletter*, printed on glossy lithocoated paper.

Normally, the *Newsletter* is limited to 72 pages per issue, but several cost restraints were lifted for its anniversary edition this past February. The result? A 176th anniversary edition running 212 pages, plus a four-color cover—exactly the size of *Playboy's* mammoth August issue.

The cost of the extra 144 pages was not available; but Navy officials say a four-color cover alone adds an extra $650 to the monthly printing bill. The *Newsletter* has two full- and one part-time civilian staffers, who produce an attractive, well-written journal.

The FY 70 printing and distribution budget for the *Newsletter* was $79,000; dividing just this cost by the number of Supply Corps officers indicates that the Navy annually spends approximately $15 per man—an expensive subscription price as magazines go. When personnel and overhead costs are added, that "per reader subscription cost" would probably run closer to $25 per year. Yet the magazine sells for only $3 per year at the Government Printing Office.

The question arises: are Navy Supply Corps officers over-informed, or are Quartermaster officers under-informed?

The large amount of information aimed at Supply Corps officers makes it seem that the military medical community is being overlooked in the Pentagon's publications enterprise. In all there are some 44,000 men and women serving in the Armed Forces as doctors, nurses, dentists, veterinarians, and biomedical technicians. Yet each Service provides only *one* magazine for all medical personnel: *Army Medical Department Newsletter* (32-page quarterly), *United States Navy Medicine* (56-page monthly), and *The USAF Medical Service Digest* (40-page monthly). Even within the military medical community disparate amounts of information emanate from headquarters: the Navy community receives 672 pages annually, the Air Force, 480, and the Army, 128. Is the Navy doctor five times more knowledgeable than his Army counterpart?

COSTS DIFFICULT TO DETERMINE

No one knows just how much all of these magazines cost—but it's a safe bet that their costs spiral upwards each year. As just one for instance, the Navy's printing bill has gone from $633,272 for 24 magazines in FY 67 to $855,021 for 21 magazines in FY 70. This difference of $221,749 converts into a 25% increase in printing costs over three years.

Based on a sample of 10 Air Force magazines (the only ones for which detailed, recent data on free versus paid circulation was available), paid subscriptions account for only 2% of the total circulation of DoD's magazine empire.

It's not just Service-wide magazines, but also *field* publications that often show evidence of generous funding. Some are printed on glossy paper, have four-color covers, and are replete with pictures—many in color. Most field publications are geared toward the "morale rationale" and are therefore filled with "human interest" stories, not hard news.

Some field magazines, however, manage to survive with minimal cost to the taxpayer. *Infantry*, published at the U.S. Army Infantry School at Ft. Benning, is such an example All but a few hundred of its 17,000 readers pay for the magazine, in contrast to the principally free distribution of other military publications. *Infantry's* printing costs and three civilian salaries are paid entirely by the money raised by subscriptions. The only budget item paid by the taxpayer is the salaries of eight military personnel on *Infantry's* staff.

The Jagged Sword, published semi-annually for members of the 1st Signal Brigade (APO San Francisco), offers its readers an in-depth look at the brigade's operations in Southeast Asia. Although it uses color, numerous pictures and glossy paper, the magazine greatly reduces printing costs by being set in Tokyo, Japan.

Service-wide magazines work on a budget subject to upper echelon review. Probably the most expensive, in terms of printing costs, are the three mass-circulation magazines—*Soldiers, All Hands*, and *Airman*. *Soldiers* leads the list with an annual printing bill of $452,658 for a 72-page monthly. *Soldiers'* circulation is 283,000. *Airman* has an annual printing bill of $225,000 for 175,000 copies distributed monthly. *All Hands*, which usually uses two colors (it made an exception for a recent four-color cover photo of CNO Admiral Elmo Zumwalt), spends $165,000 annually for printing. *All Hands'* limited use of color, along with fewer pages and smaller press runs, partially explains why its printing bill is only one-third of *Soldiers'*.

By far the most widely circulated publication in all three Services is *The Army Reserve Magazine*. Quarterly it sends 1.25-million copies to Reservists and ROTC members, for the other eight months its press run is reduced to 460,000 copies. Reservists, unlike active-duty personnel who have daily access

to bulletin boards, office newsletters, and other timely media, must get practically all of their military news from such magazines. *The Army Reserve Magazine's* annual printing budget comes to $687,384.

HIGH QUALITY, LOW COST EXCEPTIONS

Not all Service magazines are this expensive to produce. The *Army Personnel Letter* and the Navy's *Officer Personnel Newsletter* are high quality, low cost publications. Color is limited; the copy is "unjustified" (as opposed to justified copy, where there is an even margin on both sides of the column, e.g. The Journal); few, if any, photos are included, and less expensive pulp paper is used. These quarterly personnel newsletters contain hard news, which most military personnel can find only in such places as The Journal or Army Times publications. The solid reputation of both personnel newsletters leads their regular readers (which includes most Army and Navy careerists) to base much of their personal career planning on information obtained in the publications.

The *Army Personnel Letter* often has more hard news on its six pages than the more ambitious, more entertaining, more glossily produced *Soldiers*. The two magazines have slightly different purposes, but both are aimed at getting information to the entire Army community. The combined annual printing/distribution/editorial costs for *Soldiers* are $653,427, for the *Army Personnel Letter*, $39,200. Their different approaches to the same group would provide an interesting cost-effectiveness comparison: no one in the Pentagon has made it.

Although the Air Force lists the greatest number of magazines—38—it does not follow that it spends the most. Nearly half of these magazines (16) are 16 pages or less per issue. Out of these 16, nine run only four pages (e.g., *The AF Officers' Career Newsletter, Chaplain Newsletter, WAF Newsletter,* to name a few). The FY 71 printing costs of these nine four-page magazines came to only $26,650. Moreover, the four-page *AF Policy Letter for Commanders*, with a press run of 50,000, accounts for $19,000 of the $26,650. Most of the smaller magazines further reduce production costs by not using photos and color, using unjustified copy, and printing on less expensive pulp paper—yet they get their message to the intended audience. Inexpensive publications *can* be produced by the Services.

A LOADED QUESTION—ARE MAGAZINES READ?

No one seems to know if DoD's magazines are read. One Army source notes that asking a commander if a publication under his jurisdiction is read usually brings assurances that, "Of course, it is." The commander's reply, cautions the Army official, is molded by the old "preference for picture in print" syndrome. Asking the publisher this question brings the same affirmative response—but then, no one wants to lose his job.

This leaves only the reader—but again, it's a loaded question. The Joint Congressional Committee on Printing requires that mailing lists be checked annually. Postcards are sent out asking the recipient of the DoD magazine if he wants to remain on the mailing list. All he must do is check yes or no and drop the pre-stamped postcard into a mailbox. This is a dubious way of gauging reader interest, since approximately 98% of military periodicals are distributed free. Few "subscribers" getting a free magazine are going to say they're no longer interested: The mailing label serves as a new kind of DoD status symbol.

One knowledgeable former DoD official offered The Journal his plan to test the need for any publication, government or non-government. He suggests a good test would be to determine how many readers would pay for any subscription they're currently receiving free. Even if the fee were a nominal one of two dollars, the feedback would give some indication of just how widely the magazine was read. No one seems to be buying his suggestion.

"PUBLISH OR PERISH"?

Too often, it seems, a magazine is published year after year without any higher authority asking if the need for it still exists—if it ever existed. The Navy two years ago announced plans for a "Quadrennial Intensive Review of Departmental Periodicals." Stated simply, every few years each departmental periodical would be studied "for format, content, propriety, distribution and effectiveness in compliance with regulations and completion of mission." Those publications that did not come up to standards would be improved or weeded out. Limited time and personnel, said a spokesman, forced the Navy to abandon the plan.

Some DoD periodicals serve a worthwhile purpose. Many Service magazines—both the expensive and inexpensive—are professional, high-quality publications. It would be as foolish to abolish all as it is to continue unquestioningly all of the 371 (more or less) now being printed.

Following are some subjective observations falling out of the research for this article:

Production costs are not tightly controlled. Higher offices should demand justification for each factor (Paper quality, use of color/photos, number of pages per issue, press run, etc.) that increases the printing bill unnecessarily.

None of the Services have very good control over their publishing business. Too many decisions are left to lower levels. From The Journal's contact with the separate Services during research for this article, it appears that the Navy is the most efficient manager of its publications. Journal queries to Navy offices usually brought prompt answers that indicated someone was keeping track of facts and figures. The same questions at Army offices brought answers, in some instances, only after a six-month wait. OSD offices still have not replied.

There are disparities in the rationales for publications—both within and between the Services. Special interest groups are ignored in different Services; within Services different groups receive unequal treatment.

Few magazines provide hard news. More emphasis is placed on the subjective goals of raising morale and providing Service identity. Hence, it becomes difficult to evaluate if a magazine is fulfilling its intended purpose.

Other than the annual postcard sent to the reader—a rather dubious technique—no effort is made to see if DoD's three-foot-high stack of magazines is being read.

The question is not whether the magazine's staff is doing a good job; the important question is, are they doing a job that doesn't need to be done?

Many of the numbers cited in this article are extrapolations—not official figures—and therefore can be questioned. But they're better estimates than the ones the Pentagon doesn't have. The point remains: the Pentagon publishing house is a costly business. Just how costly—no one who should seems to know.

Out of the ink, paper, and noisy presses, the Pentagon seems to have gained a new principle of war: Publish or Perish.

Or perhaps it's rediscovered an old military maxim: the pen is mightier than the sword.

GUIDELINES FOR GOVERNMENT PUBLICATIONS

The Joint Congressional Committee on Printing, established 3 August 1846, regulates the printing, binding, and distribution of all government publications. Its authority extends from the standardized desk and wall calendars found in all government offices to the weight, size, and quality of congressional stationery.

Present Committee Chairman is Senator B. Everett Jordan (D–NC). Other members are: Senators Robert P. Griffin (R–Mich) and James B. Allen (D–Ala); Representatives Wayne L. Hays (D–Ohio), Samuel L. Devine (R–Ohio), and John Brademas (D–Ind).

The latest edition of the Committee's *Government Printing & Binding Regulations* (April 1971) contains the following regulations relevant to Defense Department publications:

Journals, magazines, periodicals, and similar publications—"The head of an executive department, independent agency or establishment of the Government, with the approval of the Director of the Bureau of the Budget, may use . . . such sums as are necessary for the printing of journals, magazines, periodicals and similar publications he certifies . . . to be necessary in the transaction of the public business required by law. . . ."

Central service—"Heads of departments shall maintain under their direct supervision a central printing and publications management service with responsibility for the conduct of a coordinated program controlling the development of materials to be printed, and the procurement, production, and distribution of printed matter."

Commercial advertisements—No government publications "shall contain any advertisement inserted by or for any private individual, firm, or corporation."

Color printing—"The Committee recognizes that printing in two or more colors generally increases costs." Therefore, all multicolor printing should "contribute demonstrable value toward achieving a greater fulfillment of the ultimate end-purpose of whatever printed item in which it is included."

BUT A CUTBACK IN PUBLIC PRESS BUYS

When President Kennedy became piqued with the *New York Herald Tribune* he stopped the White House subscriptions. It is not suggested that some of the Services are cutting back their procurement of periodicals because of a "bad press," but cutting back they are.

The cuts will hardly affect the general press but surely will have some impact on low-circulation specialized periodicals. And, interestingly, the cuts in the purchase of outside publications carrying independent opinion come at a time when Service and DoD house organs, which invariably carry party lines, are proliferating at an alarming rate. Observers view the trend as further withdrawal by the Services into the womb of isolation away from the mainstream of American life resulting from an un-won, unpopular war and a return to all-volunteer forces. The Army, the Service most affected by the downward turn in public sentiment, is cutting the most.

The Army, in the Pentagon, has been spending $115,000 yearly for periodicals. The Army Library, which serves the whole Pentagon, gets about $60,000 and the Department of the Army staff about $55,000. Up to a 50% cut is being sought with most of it probably coming from the staff's allotment.

In the Navy the Office of Chief of Information, which must monitor many publications to note what is being said about the Navy, budgeted $4,000 for FY 71. This figure reflects a continuing 5% per year cut over the past few years. In FY 72 CHINFO will be "sharply cut," official sources say. Office of the Chief of Naval Material, which increased its publications buy in FY 71 some 20% over FY 70 to almost $9,000, will also slash its buy in FY 72.

The Air Force, on the other hand, has always had a tradition of being public relations conscious and well informed. It is increasing the funds budgeted for Air Staff's procurement of periodicals some 20% from a yearly $55,000 to $64,000 in FY 72.

AND THERE IS STILL MORE TO READ

For the serviceman who still has time for some reading after digesting the Service magazines that might pass through his hands—there's no need for despair. There are 1,038 newspapers—base, ship, overseas, civilian enterprise—to fill any leisure hours that may remain.

DoD Handbook No. 5120.4–M, which covers regulations for military newspapers, divides such papers into two classifications:

(1) Armed Forces newspapers—"published by a military organization or Defense Agency activity with appropriated or non-appropriated funds."

(2) Civilian enterprise publications—"published by commercial publishers under contract with Department of Defense activities and intended for Department of Defense military or civilian personnel."

The breakdown of newspapers for each Service is as follows:

	Armed Forces	Civilian enterprise	Total
Army	475	42	517
Navy (including Marines)	238	49	287
Air Force	138	96	234
Total	851	187	1,038

The Handbook states that all "DoD components are authorized to establish and maintain Armed Forces newspapers in support of their respective internal information programs and for the information and morale of their personnel." Except for various local news items (the number probably depends on the size of the local staff), most of the news is obtained from the American Forces Press Service (AFPS), and from individual Service equivalents.

AFPS, a kind of military AP or UPI, forwards without charge weekly military news, art, feature material, and canned editorials to editors of Soviet newspapers. The two pages of material come ready to be clipped for immediate use. The forerunner of AFPS, the Camp Newspaper Service, was begun during WWII as a supplement to editors of camp publications. Its twofold mission has remained the same: (1) to fill the needs of Service editors for news, art, and features; and (2) to support the objectives of the Department of Defense. The original 400 subscribers of AFPS have grown to 1,500 newspapers, television and radio stations. AFPS, currently under DoD's Directorate for Armed Forces Information and Education, has an annual operating budget of $95,000.

The major difference between civilian enterprise papers and official DoD publications is that no appropriated funds may be used to pay for publishing costs of the civilian papers. The publisher, hopefully, makes his money by selling ads.

ESCAPE CLAUSE

The Handbook states, however, that "non-appropriated funds may be used to buy copies for distribution to personnel when there is good evidence that there is not sufficient revenue from other sources to make publication feasible." There seem to be no figures available on how often this escape clause is used. The civilian enterprise publisher furthermore can distribute his paper "through official channels without cost . . . provided this will not require additional expenditures of appropriated funds."

Civilian enterprise newspapers, usually low budget operations, use press releases prepared by various DoD agencies, the AFPS clipsheet, and even on some occasions "canned" editorials supplied by the government. Although the DoD Handbook notes that the publication is "not subject to military control with respect to content," the commander responsible for the contract with the civilian publisher "may suggest the positioning of editorial matter and military photographs within the newspaper."

THE TIP OF THE ICEBERG—MAGAZINES APPROVED AT PENTAGON LEVEL

	Army	Navy/ USMC	Air Force	Service totals	DOD	DOD totals
Frequency of publication:						
Weekly, biweekly	0	1	3	4	1	5
Monthly, bimonthly	11	17	16	44	3	47
Quarterly	2	9	19	30	3	33
Total number of magazines	13	27	38	78	7	85

	Army	Navy/ USMC	Air Force	Service totals	DOD	DOD totals
Annual cost (dollars in millions):						
Printing	$1.92	$1.09	$0.79	$3.80	$0.34	$414
Editorial	.88	1.83	2.57	5.28	.47	5.75
Overhead	.92	.96	1.11	2.99	.29	3.28
Total annual cost	3.72	3.88	7.17	12.07	1.10	13.17

NOTES

Number of magazines by frequency: All figures supplied by Services. DOD figures by Armed Forces Journal.

Annual costs: Printing costs as supplied by Services, except for the Navy, where costs for 6 magazines of the 27 listed were not provided; Navy printing costs for all 27 have been extrapolated on the basis of Navy figures, $855,021 for 21 magazines. DOD printing costs extrapolated on basis of Service averages.

Editorial costs were available only from the Army, $879,134 for 13 Servicewide magazines. Other editorial costs were estimated on the basis of the Army's average editorial cost per magazine.

Overhead includes office space, telephone, employee fringe and retirement benefits, administrative overhead, travel, equipment rental, etc. No Service or DOD estimates were available. Therefore, these costs were estimated on the basis of a copyrighted 1969 survey by American Business Press, Inc., showing that general and administrative costs for 228 commercial trade magazines amounted to 33 percent of printing and editorial costs, combined.

PRESIDENT NIXON'S ADDRESS TO THE NATIONAL LEAGUE OF FAMILIES

Mr. DOLE. Mr. President, one of the most difficult and frustrating aspects of the war in Indochina is the plight of the nearly 1,500 Americans who are being held as prisoners of war or who are listed as missing in action in North and South Vietnam, Laos, and Cambodia.

Countless efforts by this Nation and other governments and by many public and private figures throughout the world have met with virtual futility in seeking to assure release, or at the bare minimum, humanitarian treatment, for these brave men. The Nixon administration has, from the very beginning, devoted every possible resource to achieving these goals—in Paris at the formal negotiations, through intermediaries and through private channels. The response from the enemy, however, has been duplicitous, contradictory, misleading—and singularly devoid of any indication that they are willing to discuss prisoners and missing men in good faith.

In and of itself this intransigence and insensitivity on the enemy's part would be disheartening enough to the families of these men and to those who bear the responsibility for leading this Nation and attempting to terminate the war in an honorable way which offers hope of rescuing the captives. However, there have been some who have preyed on the anxieties and frustrations of the parents, wives, brothers, sisters, and children of the prisoners missing and upon a war-weary people's desire for peace. They have said that the President has abandoned the prisoners and that he has rejected possible avenues for their release. They have raised false hopes and made irresponsible charges for the shallow benefits of personal publicity and momentary notoriety.

These charges are false. They are malicious. And they do no service to the 1,476 missing and captive American fighting men, their families, and the leaders in this country, who—unlike their opportunistic critics—are charged with the heavy responsibility of providing for the safety and security of this Nation and the men who defend it.

Last evening at the annual meeting of the National League of Families of Prisoners and Missing in Southeast Asia, President Nixon clearly and forthrightly stated his commitment to these family members and to their men. So that there may be no mistake over that commitment, nor the intensity of the President's devotion to it, I ask unanimous consent that the text of the President's remarks be printed in the RECORD at this point.

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

REMARKS OF THE PRESIDENT AT THE ANNUAL MEETING OF THE NATIONAL LEAGUE OF FAMILIES OF AMERICAN PRISONERS AND MISSING IN SOUTHEAST ASIA

Mrs. North, Mr. Secretary, all of the distinguished guests who are at the head table and all of those who are in this audience:

I have spoken in this room many times over the past, believe it or not, 24 years, starting as a Congressman. I can assure all of you that this brief remark that I will now address to you is spoken more from the heart, I think, than anything I have ever said before.

The Secretary of Defense—and I have had an opportunity to read his remarks and endorse them—will address you later. He will tell you what we have been doing, what we are doing, what we hope to do with regard to the great objective in which all of you and all of us are interested, and that is obtaining the release of all of our POW's and missing in action wherever they may be in Southeast Asia.

But I wish to underline what the Secretary will tell you by indicating the personal commitment of the President of the United States. As you can imagine, whoever holds

the office of the Presidency cannot take upon himself all of the various assignments that come across his desk. Much must be delegated.

I want each and every one of you to know, however, that from the time in the White House Library, at Christmas time, 1969, I met a group of wives and one mother of some POW's and missing in action, from that time, as the Secretary of Defense can tell you, and the Secretary of State can tell you, I have considered the problem of obtaining the release of our POW's and missing in action as being one that has Presidential priority.

I can assure you that every negotiating channel—and now I say something here that I am sure all of you will understand—including many private channels that have not yet been disclosed, have been pursued, are being pursued and will be pursued.

I can assure you that with regard to this problem, that whenever any matter comes to the attention of the Secretary of Defense, or the Secretary of State, from a Senator or Congressman or the rest, it is brought to my desk and we run out the lead, whatever it may be.

You know the tragedy we have found so often—hopes are raised and then dashed, because we are dealing here with a savage enemy, one who has no concern for humanitarian ideals.

But on the other hand, we believe that it is essential to check every possible lead; we don't care where it comes from. We are doing that.

I have personally ordered that and we will continue to do so, and I believe that we will eventually succeed in our goal. That is my commitment that I make to all of you.

Now, I have delayed your dinner too long, but I would like to add one other rather personal note. Many times when I travel around the country, people—particularly young people in school—will say, "You know, Mr. President, that must be a terribly awesome responsibility to serve as President of the United States." And people sometimes feel that all of the great burdens of the world are on the shoulders of the President and that the responsiblities are indeed awesome. I would be less than candid if I were not to say that the responsibilities are heavy.

But let me tell you something: Any day that I sometimes feel that it has been a rather hard day and that I have had to make some real tough decisions, and I haven't had very much support, and any time I begin to feel a bit sorry for myself, I think back to that day just before Christmas in 1969.

I think of airports where children have come up and said, "My daddy is missing in action." I think of the wives who I have seen and the mothers and the rest. I think of their courage and what they have done and what they have given for their country, and then I realize my job isn't all that hard.

I am just so proud of how great you have been and I am not going to let you down.

PUERTO RICAN RESOLUTION TO CONGRESS

Mr. SCHWEIKER. Mr. President, on Monday of this week. I was privileged to attend a meeting of representatives from Puerto Rican communities from many different States, including leaders from the Council of Spanish Speaking Organizations in my own State of Pennsylvania.

They had come to Washington to discuss issues with their elected representatives, and to present a resolution to the full Congress outlining their concerns. Their principle objective is to join all American citizens in sharing equally in the effort to solve our country's problems, and I commend them for their constructive approach in making their grievances known through such a meeting and resolution.

Many Senators already know that one immediate concern of members of the Puerto Rican community is to have full and active representation in the operation of the Cabinet Committee on Opportunities for the Spanish-Speaking People and to have a representative of the Puerto Rican community in one of the responsible positions on the committee staff. At a time when confidence in the capacity of government to deal effectively with many of our problems is questioned in some circles of society, it is encouraging to meet with a group of people who seek to join with our Government to work out answers in a constructive and positive fashion, and I feel that they should be provided the opportunity for responsibility on the Cabinet Committee.

Mr. President, the resolution presented at this meeting was directed at the entire Congress and contains many detailed points. I am studying these details. I ask unanimous consent that the resolution be printed in the RECORD.

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

A RESOLUTION TO THE CONGRESS OF THE UNITED STATES BY THE NATIONAL PUERTO RICAN LEADERSHIP

Whereas, On December 30, 1969, the President of the United States signed into law the bill S. 740, promulgated as Public Law 91–181, establishing a Cabinet Committee on Opportunities for the Spanish Speaking People to assure that federal programs reach all Mexican-Americans, Puerto Rican-Americans, Cuban-Americans, and all other Spanish Speaking and Spanish-Surnamed Americans, and, to provide the assistance to seek out new programs that may be necessary to meet problems unique to these persons, and

Whereas, The Cabinet Committee on Opportunities for the Spanish Speaking People was created by the Congress to operate at the Cabinet level as the sole federal agency expressly charged with the task of assuring equal opportunities to *all* Spanish Speaking Americans, thus ending attitudes and discriminatory practices through which these people's rights as citizens, and, as human beings, have been, and, are systematically ignored, neglected, and/or, given the lowest priority, and

Whereas, The Congress, in order to make more effective the impact of the aforesaid Cabinet Committee in discharging its congressional mandate, provided that the Secretaries and Heads of the ten (10) Departments and Agencies of the Executive Branch, most concerned, shall be members of the aforesaid Cabinet Committee on Opportunities for the Spanish Speaking People, and

Whereas, Upon the establishment of the aforesaid Cabinet Committee on Opportunities for the Spanish Speaking People, it was placed under the Chairmanship of Mr. Martin Castillo, a Chicano gentleman from California, who apparently succeeded in getting himself appointed as one of those "individuals who are recognized for their knowledge of and familiarity with the special problems and needs of the Spanish Speaking People," as Public Law 91–181 requires, but who finally proved to be out of step with the true problems of the Non-Chicano Spanish Americans, and, more importantly, decidedly hostile to the interests of the Puerto Rican-Americans, as evidenced by his failure to respond to their needs and by their exclusion from his Staff, and

Whereas, the Puerto Rican Americans did not oppose the appointment of this first Chairman, Mr. Martin Castillo, because of their habitual sense of respect for the judgment of those entrusted by the public with the sensitive function of appointing its servants, and

Whereas, experience has proven to the Puerto Rican community that despite the Congressional mandate to assure equal opportunities for all Spanish Americans embodied in Public Law 91–181, the Cabinet Committee chaired by Mr. Martin Castillo, systematically and deliberately denied the Puerto Rican Americans and other Non-Chicano Spanish Americans equal participation in the benefits accruing from the establishment of this Cabinet Committee, and

Whereas, the first Chairman, Mr. Martin Castillo, resigned on December 31, 1970, due to many complications of his own making, and in the wake of many warnings from Puerto Rican Americans that his attempt to maintain a permanent monopoly of power was essentially a self-defeating, flagrant infringement of the Congressional mandate providing for a system of fair participation in the administration of the Cabinet Committee on Opportunities for *ALL* Spanish-Speaking Americans, and

Whereas, in the absence of a Chairman from January 1, 1971, another Chicano by the name of Antonio Rodriquez, descended upon the Cabinet Committee, on or about the middle of March 1971, proclaiming publicly that he had been appointed Executive Director of the Cabinet Committee by Mr. Robert H. Finch at the White House, and that he and Mr. Finch were in charge of all matters pertaining to this Cabinet Committee, and

Whereas, the aforesaid Mr. Rodriquez immediately demonstrated hostility to the Puerto Rican interests and a total disregard of the Congressional mandate to accord the Puerto Ricans and other Non-Chicano Spanish-Americans the fruits of this legislation, and

Whereas, the aforesaid Mr. Rodriquez, among his other deficiencies during the period of his open control of the Cabinet Committee appeared to devote most of his time to extensive travel, at public expense, in the promotion of his candidacy for permanent appointment as Chairman, and

Whereas, in early July, 1971, Mr. Rodriquez publicly acknowledging that he was no longer in consideration for the Chairmanship, and, asserting the support of his White House Sponsors for Mr. Henry Ramirez, another California Chicano, for that office; again publicly asserted that the aforesaid Mr. Ramirez would have him, Rodriguez, "running the show in the Cabinet Committee," and

Whereas, a dispassionately objective review of the administration of the activities of the Cabinet Committee on Opportunities for the Spanish Speaking People to date forces the conclusion that equal opportunities for the Puerto Rican interests have been and are being sacrificed to political expediency and the personal aggrandizement of the Messrs. Antonio Rodriguez and Henry Ramirez in total disregard of Public Law 91–181, and the directives of President Nixon to improve the status of *ALL* Spanish Americans, and

Whereas, such violation of the law and Presidential directives continue in that the *third Chicano Head* of the Cabinet Committee on Opportunities for the Spanish-Speaking has arrogated unto himself, as did his predecessors, the power to ignore the Puerto Rican demands for justice and the absolute power to "reorganize out" of the staff of that Committee any advocate of the interests of the Puerto Rican Americans, and

Whereas, the Chairman-designate, Mr. Henry Ramirez, in the effort to blunt *valid Puerto Rican criticism* and to obscure the real issue, i.e., *the Puerto Rican right to absolute parity in the affairs of the Cabinet*

Committee on Opportunities for the Spanish Speaking People, is luring to his staff in positions which cannot disturb the Chicano monopoly, certain Puerto Ricans who are not recognized, as required by Public Law 91–181, "for their knowledge of and familiarity with the special problems and needs" of the Puerto Rican community, and

Whereas, this policy, i.e., of excluding Puerto Rican leaders who are recognized for their expertise in Puerto Rican matters from the Cabinet Committee, *emphasizes the general exclusion of Puerto Ricans from policy-making positions of any consequences in the Federal Government* and, thereby, the denial to Puerto Ricans of any opportunity, as has been granted to other minority groups, to sensitize and make responsive the Federal establishment to the unsatisfied needs of the Puerto Rican American community in its efforts to more effectively combat poverty and its fellows: crime, delinquency, drug-addiction and the consequent moral degradation, and

Whereas, the denial of equal opportunity for Puerto Rican Americans in the Cabinet Committee must be juxtaposed with the hard fact that the Puerto Rican Americans occupy the lowest paid jobs doing the most menial labor while Offices of Special Concern are being created at the highest level in the Federal Government to work more effectively for the economic and social improvement of *ALL* the Spanish-Speaking Americans but are, consideredly, unconcerned with the needs of the Puerto Rican community, and

Whereas, the deliberate exclusion of Puerto Ricans from the Cabinet Committee, and their general exclusion from policy-making positions in the Federal establishment, needs must be contrasted with the stated aims of the President of the United States in his authorization of a 16-point program, administered by the Civil Service Commission to increase the employment opportunities of *ALL* Spanish-Speaking Americans, and, the fact that, the aforementioned Presidential directive, notwithstanding this program, directed by Chicanos, apparently is increasing job opportunities *only* for *those other than Puerto Ricans,* and

Whereas, the federally sponsored efforts to foster minority capitalism reflects the general governmental neglect of the Puerto Rican Community in that of the approximately 100,000 business enterprises owned and operated by Spanish Americans in the nation, the Puerto Rican ownership represents a minimal fraction thereof, and

Whereas, the exclusion of Puerto Rican Americans from the Cabinet Committee on Opportunities for the Spanish-Speaking People and the general exclusion of Puerto Rican Americans from any policy-making position in the upper levels of the Federal Government forces the conclusion that any such positions available to those of Spanish origin and/or tongue are reserved to a certain segment of the Spanish-surnamed community, and

Whereas, these enumerated denials of equal opportunities to the Puerto Rican Americans has had the net result of brutally leaving the Puerto Ricans devoid of any representation and/or power to bargain for a just and fair share of the Federally assisted programs for public assistance, housing, manpower, education, health services, migrant labor, community action programs, etc., designed to eradicate poverty and its collateral effects among all Americans, including *Puerto Rican Americans,* and all other Spanish American groups.

Whereupon, the Puerto Rican National Leadership, in representation of the Puerto Rican American Community, has taken cognizance of the public testimony of Mr. Antonio Rodriguez before the Senate and House Committee on Government Operations on the bill H.R. 7586, a bill to authorize appropriations for the operation of the Cabinet Committee on Opportunities for the Spanish-Speaking People, and respectfully request:

1. The General Accounting Office be instructed, forthwith, to conduct an exhaustive audit of the management and the use of public funds by Mr. Antonio Rodriguez, and, the veracity of the testimony of Mr. Rodriguez before these Committees.

2. The General Accounting Office be instructed, forthwith, to conduct an exhaustive investigation into the use of public funds for the operation of the Cabinet Committee on Opportunities for the Spanish-Speaking People; its use of consultants, the gross preponderance of which is Chicano, at the rate of $100.00 per day, plus travel expenses, while the 35 permanent statutory-authorized positions are unfilled except for a Chicano cadre, excluding *ALL* other Spanish-Speaking Americans from any policy-making positions.

3. The General Accounting Office be instructed, forthwith, to inquire into the circumstances surrounding the retention by Mr. Antonio Rodriguez, during his tenure as de-facto Executive Director of the Committee, of Mr. Martin Castillo as a Consultant after the forced resignation of Mr. Castillo; the utility of the work of Mr. Castillo and its pertinence to the Spanish-American Community; the retention of Mr. J. B. Casas as a Consultant to the Committee after his resignation as Legal Counsel to the Committee; the association of Mr. Casas with the law firm of Mr. Castillo in the State of California; the tasks assigned Mr. Casas, and the degree of his "expertise" in matters pertaining to the Puerto Rican and/or other Spanish-Speaking communities.

4. The General Accounting Office be instructed, forthwith, to investigate the "special" circumstances surrounding the appointment of any Consultants by Mr. Antonio Rodriguez, and, the subsequent elevation of these consultants to membership on the Advisory Counsel to the Cabinet Committee on Opportunities for the Spanish-Speaking consel.

5. The General Accounting Office be instructed, forthwith, to inquire into the circumstances surrounding the reorganization of the Cabinet Committee on Opportunities for the Spanish-Speaking People, announced by Mr. Henry Ramirez in the Cabinet Committee Newsletter, September 13, 1971, abolishing the position of Executive Director, so as to preclude the appointment of a Puerto Rican, thus preserving the Chicano monopoly in the Cabinet Committee.

6. The Senate Committee on Government Operations reject the nomination of Mr. Henry Ramirez as Chairman of the Cabinet Committee on Opportunities for the Spanish-Speaking People.

7. A. The Senate Committee on Government Operations positively assert its disposition to confirm a Puerto Rican as Chairman of the Cabinet Committee on Opportunities for the Spanish-Speaking People, thus mending the rift in the Spanish-Speaking Community caused by the greedy exploitive policies of the predecessor Chairmen.

B. Failing this historical opportunity for benefiting the *WHOLE* of the Spanish-Speaking Community, the Senate and House Committees on Government Operations should, forthwith, proceed to the consideration of the amendment of Public Law 91–181 to transform the Cabinet Committee on Opportunities for the Spanish-Speaking People into the Cabinet Committee on Opportunities for Mexican-Americans, and, *the immediate establishment of a separate Cabinet Committee on Opportunities for Puerto Rican Americans.*

THE NATIONAL PUERTO RICAN LEADERSHIP CONFERENCE.

ECONOMIC DAMAGE CAUSED BY TRANSPORTATION CRISES

Mr. PACKWOOD. Mr. President, on Tuesday, September 28, Mr. Clarence Palmby, Assistant Secretary of Agriculture, testified on behalf of the Department of Agriculture in favor of the proposed Emergency Public Interest Protection Act of 1971. I listened to this testimony and thought it strongly pointed up the tremendous problems to agriculture, as well as to the entire Nation, caused by the lack of a workable mechanism for settling labor-management disputes arising in our national transportation system.

I think Secretary Palmby's statement with its documentary evidence of the damage and potential damage to our economic well-being caused by these transportation crises will be interesting and informative to all Senators. I ask unanimous consent that the testimony be printed in the RECORD.

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

STATEMENT BY ASSISTANT SECRETARY OF AGRICULTURE FOR INTERNATIONAL AFFAIRS AND COMMODITY PROGRAMS CLARENCE D. PALMBY, SEPTEMBER 28, 1971

The U.S. Department of Agriculture strongly supports the proposed Emergency Public Interest Protection Act of 1971 as a reasonable effort to deal with disputes between labor and management which arise in the transportation industries.

America's farmers depend for their very livelihood on our national transportation system, as indeed do all of our industries and consumers. However, our national transportation system is now being critically impaired because we lack a workable mechanism for quickly and equitably settling labor-management disputes. We fully realize that work stoppages are only one part of the transportation crises facing this nation. But we *must* find a better way to deal with labor disputes if we are to have the transportation system that a strong and growing U.S. economy requires.

Most of our people live far away from the farms that produce most of the food and fiber they need. Because we have had good transportation and marketing systems, our farmers are able to produce where soil, climate, and economic conditions are most favorable. The food is then shipped rapidly and efficiently to the great Metropolitan centers where it is needed. If our transportation system is stopped for any length of time, this represents an intolerable threat to the public. It is also an intolerable threat to farmers who may be unable to market their crops.

There is another vital reason for our concern about transportation tie-ups—and this is the effect of transportation stoppages on this nation's balance of payments through our agricultural exports. President Nixon recently told a joint session of this Congress that economic progress in the world has dramatically altered the relationships between the U.S. and other great trading nations, and that "we are now being challenged to protect the value of the dollar and to learn once again to be competitive."

Farmers have long known they must compete and have known how to compete as indicated by the fact that we are the world's largest exporter of farm products. Agricultural exports reached a new high of $7.8 billion last year. And farm exports contributed more than $6 billion to the nation's commercial trade balance last year. Without the

favorable ratio of farm exports to imports, our balance of payments would have reached the crisis stage long ago.

But farmers are aware that their competitive position is in jeopardy—through no fault of their own—if they cannot depend on our transportation industries to move their farm products. In world markets, our crops have to compete directly with commodities from other countries . . . and if buyers cannot depend upon getting a dependable quality of U.S. products, they will buy what they need from others.

The present West Coast dock strike offers a prime—if tragic—example of what can happen. While our farmers sit by—helpless to act—they see much of their foreign market going right down the drain. For the months of July and August, an estimated $215 million worth of farm products, which would have moved through West Coast ports, could not be delivered. About $40 million of that amount was in fresh fruits and vegetables—perishable products that cannot wait for a strike to end . . . and 60 percent of that business is lost and will be difficult—if not impossible to regain.

Wheat that would normally be moving to our leading single country customer, Japan, is piling up in elevators and even spoiling on the ground, because it cannot be shipped. The Japanese, who have been trying to diversify their farm product purchasing because of the threat of transportation stoppages from this country, are making other arrangements to buy wheat from Australia and Canada. Our agricultural attache in Tokyo reports the known loss of U.S. agricultural export business with Japan because of the strike totaled $7.7 million for one 2-week period in July.

The West Coast dock strike cannot be viewed as an isolated instance. We've had rail strikes and threatened rail strikes averted only by last-minute Congressional intervention. And right now we face the threat of a strike of Gulf Coast ports—which would be even more of a catastrophe for agriculture. As important as West Coast ports are to U.S. farmers, the Gulf Coast ports are even more vital. Last year nearly half of our agricultural exports were shipped from Gulf Coast ports.

So as we debate this issue today, the combine sickle bars are busily clipping through the fields of Corn Belt and the Plains States, harvesting the biggest crops of grain and soybeans in this Nation's history. Millions of bushels of these commodities are normally destined for export through the Gulf ports. Farmers are counting on these export sales to keep them in business. Elevators and rail and barge lines have carefully planned how to move these tremendous crops to terminal elevators to await the ships which even now may be at sea. In Europe and the Orient, U.S. businessmen are negotiating sales contracts that will bring badly-needed cash flowing into the United States.

The mere threat of the strike has already hurt. Elevators are reluctant to buy the farmer's newly-harvested crops because they don't know when they can ship the commodities, or what kind of market losses and price drops may occur even if they can eventually ship. Foreign buyers are looking for other sources of supply—in case of the strike.

The 115-day strike at Gulf Coast ports two years ago offers a good example of how a transportation strike can hurt—not just the farmers but the entire economy of the nation. When the strike began, our farm exports had been trending up for several years. At the end of 1969, however, our farm export totals were $570 million short of the previous year.

A U.S. Department of Labor task group studying the effect of this strike noted . . "most U.S. (agricultural) exports face competition from nearly identical commodities. Even soybeans, (a leading U.S. agricultural export) face competition from other oilseeds and their products. Inability to make delivery will mean loss of a particular sale, but need not mean permanent loss of the market. However, loss of a particular sale will often make it more difficult to repenetrate the market. For example, millers adjust their grist to the specific type of wheat they are using; once they have shifted from say U.S. wheat to Australian or Argentinian wheat, shifting back involves both costs and inconveniences. Shifting back to soybeans from some other oilseed will involve comparable problems."

Partial estimates of business *lost* by U.S. farmers *during* that strike: *Soybeans:* 10 million bushels of beans and 300,000 short tons of soybean meal—valued at $50 million—lost to fish meal, rapeseed, peanuts, and palm oil. Competitors benefitting were Peru, Argentina, India, Africa, Malaysia, and China. *Feed grains:* 900,000 metric tons, valued at $58 million; France benefitted by 300,000 tons of corn. *Wheat:* 30 million bushels, valued at $50 million, lost to Australia and Argentina. *Meat and Meat Products:* 20 million pounds, representing about $5 million, replaced in part by Argentina. *Rice:* 3 million cwt., worth $29 million, replaced primarily by Thailand. *Cotton:* 200,000 bales, worth $39 million, with Sudan, UAR, Brazil, Peru, and Colombia benefitting.

At this critical time as we try to get our economic house in order, we cannot afford these continuous threats to our transportation system. Dependability is a vital factor in building and holding export markets.

As a nation we must begin to think seriously about the economic cost of not being able to settle our transportation disputes without loss to farmers, to our entire economy and to our nation's competitive position in world markets.

I urge the fullest support of this proposed legislation—now—in the belief that it will help us accomplish the important goals set out recently by President Nixon.

HON. GEORGE BUSH, AMERICAN AMBASSADOR TO THE U.N.

Mr. MATHIAS. Mr. President, on September 19 the Washington Sunday Star published an informative article by William L. Ryan about my old friend, the distinguished American Ambassador to the United Nations and former Representative from Texas, George Bush. I heartily commend this report to the Senate and ask unanimous consent that it be printed in the RECORD.

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

U.S. ENVOY

(By William Ryan)

UNITED NATIONS, N.Y.—The way he tackles diplomacy, Ambassador George Bush doesn't really have to be an athlete in top condition. But it helps.

The former Navy flier who will pilot U.S. policy through the U.N. session starting this week finds that a 16-hour working day has become more rule than exception.

Evidently he thrives on it. His enthusiasm for the job seems to have infected his entire staff at the 12-story U.S. mission building across the street from the U.N. complex.

The session opening Tuesday will, among other things, consider the complex question of China's representation. In his first General Assembly appearance as ambassador, Bush has a tough assignment: to champion President Nixon's "two Chinas" policy, which both Red China and the Nationalists on Taiwan reject.

How will it work out? Bush says that if the two-Chinas policy does not succeed, it will not be for lack of trying on his part.

"Some people are saying the United States isn't really trying very hard to keep Taiwan in, but if that's so, nobody's told me about it," he says.

Bush's remarks to an interviewer suggested two outstanding traits: loyalty and irrepressible optimism. He is loyal—some say to a fault—to President Nixon and frequently quotes him in conversation. And his personality is such that pessimism for Bush would seem next to impossible.

George Herbert Walker Bush, 47 years old, is a self-made Texas oil millionaire. He had been transplanted to Texas, however, from New England, and he combines shrewd Yankee humor with Texas affability.

As a Republican congressman from Texas, Bush once was considered a strong possibility for the 1972 Senate race. He still looks to some Republicans like a prospective answer to the Democrats' acquisition of New York's Mayor John Lindsay.

VOTE GETTER

He has the engaging manner of a natural-born vote-getter.

"I sure wish he was a Democrat," a Democratic leader was once heard to murmur wistfully.

President Nixon noted the potential in a bantering way last February when Bush was sworn as ambassador. Nixon recalled how President William McKinley had lost an Ohio race and gone on to become president, "but I'm not suggesting what office you should seek and at what time."

What about political aspirations as of now? Bush grinned.

"In this job I am not a political person. I can't be. You can't indulge in political partisanship in this job. If you asked me could I conjure up a set of facts involved in the elective political process, I would have to admit that, yes, I am still a political animal and keep my interest in elective politics. But there's no time here to think of such things.

"As a cabinet member, of course I keep up with domestic affairs and would be prepared to discuss domestic and international issues. But I am a strong believer in the policies President Nixon is embarked on now in the United Nations, and he is entitled to total advocacy here."

The President gets it; Bush does not spare himself.

The ambassador rises at about 7 and switches to a news program which takes exactly 12 minutes. That's how long Bush stays on his exercycle.

"The exercycle session is boring. Nobody wins, nobody loses, no competition, and I hate every minute of it, but I feel I ought to do it. I don't ever eat much breakfast and I leave my apartment at the Waldorf about 8, to be driven to the mission. I get here every morning about 8:10."

The ambassador's 11th floor office commands a view of the U.N. complex. The walls have photographs of the President, vice president and secretary of state, the U.S. astronauts on the moon and various Bush family scenes. On a table near a window is a bust of Abraham Lincoln, and near the desk is an old globe on a stand, which Bush calls "the antique."

For an informal conversation, Bush abandons his desk and seats himself in an easy chair. Recently back from a stay at a vacation retreat in Maine, he looks tanned and relaxed. But as he talks, the relaxed manner fails to hide the fact that he is a bundle of energy. Glasses pushed back on his head, he pops out of his chair, reaches the desk in a couple of long strides and fishes out his appointment calendar.

"First thing in the morning, my secretary, Mrs. Aleene Smith, brings me the morning's telegrams to read and I have a session with my executive assistant, Tom Lias."

He thumbs the desk calendar and chooses a typical day. It includes the morning staff meeting, appointment after appointment with ambassadors and U.N. officials, luncheon

engagement, receptions in the evening, and a formal dinner. Invariably at least one dinner and one reception must be attended. Sometimes two or three diplomatic receptions occur on the same day and he must make all of them. He regards that as devotion "above and beyond the call of duty."

"I try to get to bed by 11:30 if possible, but often my calendar is so filled that I fall behind in my work and have to take it home with me."

He travels frequently to Washington for Cabinet meetings and other chores, to say nothing of speaking engagements around the country. So it helps to be physically fit.

Bush was born June 12, 1924 at Milton, Mass. His father is Prescott S. Bush, an investment banker who served as U.S. senator from Connecticut in 1952–62. His maternal grandfather was George Herbert Walker, donor of the international golf trophy, the Walker Cup.

Bush's family moved to Greenwich, Conn., the year he was born. The ambassador remembers with a trace of awe the imposing figure of his tall and handsome father presiding as moderator over Greenwich's town meeting.

Bush still was in prep school at the time of Pearl Harbor.

On the day he turned 18 he enlisted in the Navy, and before he was 19 had his commission and wings as a Navy pilot. He flew torpedo bombers from a carrier in the Pacific and was shot down off the Bonin Islands. Luckily, he spotted a U.S. submarine and swam for it; "I set a new record for free style."

Bush left the Navy as a junior grade lieutenant in 1945, with a Distinguished Flying Cross and three air medals. He completed his education, emerging from Yale in 1948 as a Phi Beta Kappa with an economics degree. With his bride of 1944, the former Barbara Pierce of Rye, N.Y., he headed for Texas, made Houston his home and entered the oilfield supply business. Eventually he founded Zapata Petroleum Corp., an international drilling contract firm and Zapata Offshore Co.

HOUSE RACES

The "political animal" in him would not be denied. He ran successfully in 1966 and 1968 for Congress from Texas, 7th District. He was critical of rockbound Republican conservatives, feeling that the party should be dynamic and not frightened of change.

"Would you consider yourself a sort of liberal conservative?" he was asked.

"People in Texas used to ask me that in the campaigns," he replied. "Some even called me a right-wing reactionary. I like to think of myself as a pragmatist, but I have learned to defy being labeled. I don't object, particularly, but I feel labels mean different things to different people, and it's impossible to make them objective. What I can say is that I am a strong supporter of the President. If you tell me what he is, I can tell you what I am.

"I exercise some discretion, of course, but I would not exercise any that would conflict with the President's policies. If I did find myself in conflict with them, my conscience would dictate that I get out. If I couldn't support the President's policies with enthusiasm, vigor and energy, then the United States and its President would be underrepresented here."

As ambassador, Bush must entertain extensively at his Waldorf Hotel suite, but the Bushes always have been enthusiastic hosts.

"Barbara likes it," he says. "We like people. We have a feeling of friendship and mutual respect when we deal with the various ambassadors."

In those encounters he likes to keep the atmosphere informal and avoid an atmosphere of "diplomatic stuffiness. There's a place for protocol," he said, "but it can be overdone."

As ambassador, Bush cheerfully admits his lack of a diplomatic background, but feels any critics on that score should withhold judgment until his first U.N. assembly session ends in December. He admits he has changed his mind on some things, including the China question. Seven years ago he was quoted as saying that if Peking ever should be voted into the United Nations the United States should get out.

"That was 1964, a long time ago," he observes. "There's been an awful lot changed since . . . A person who is unwilling to admit that changes have taken place is out of things these days. President Nixon is not being naive in his China policy. He is recognizing the realities of today, not the realities of seven years ago."

Bush approaches his job from the standpoint that his first duty is to his own country.

"If I became an international civil servant, that would be wrong. What is going to make the United Nations stronger is its function as a melting pot for different viewpoints. The United States should be strongly represented and we should try to bring out what's good about our country, be prepared to stand up in behalf of our country whenever necessary."

At the same time he is an eager salesman for the U.N. ideal. He wants to stimulate interest in it around the world, possibly by means of a U.N. session once in a while in another country.

"For example, let's see what happens if a U.N. session is held in a Communist bloc country. Why not let others see what the problems are, what it means? It could revitalize the whole organization. The costs would be high, but if the Olympic games, for instance, can be taken to Tokyo, why not the United Nations to another country?"

MINERS' DELIGHT, ATLANTIC CITY, WYO.

Mr McGEE. Mr. President, the State of Wyoming boasts of many eating establishments of not only outstanding quality but also unique in their setting.

One of these adventures in culinary excellence is the Miners' Delight, located at the site of the ghost town of Atlantic City. Ed Christopherson, in a recent edition of the New York Times, wove a delightful tale of his experiences at this restaurant, which is operated by the Paul Newmans.

I ask unanimous consent that the article be printed in the RECORD.

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

IT IS IN A GHOST TOWN MILES FROM NOWHERE, BUT WHAT A MEAL

(By Ed Christopherson)

LANDER, WYO.—To get to what may be the most remote dining adventure in the United States, you take a road that climbs through spectacular mountains to an obscure turnoff on the summit, some 30-plus miles south of here.

After an additional plunging three-mile ride over gravel you pass a sign "Entering Shoshone National Forest." Finally you're over a hill and into the old gold mining town, only slightly resurrected, of Atlantic City, Wyo.—the site of the Miners Delight, where for $6.50 (and no questions answered) you can enjoy a meal that's memorable in this steak-and-lobster-tail country.

In this ghost town gulch—whose population is down to 10 persons from an 1870 high of 2,000—the Miners Delight holds forth in the chinked log structure that used to be the Carpenter Hotel.

A QUIETER ENVIRONMENT

The restaurant is run by Paul and Georgina Newman, who a decade ago left careers in New York for the quieter environment of Wyoming. With only the dinner-time help of a neighbor, Rusty Webb, a high school sophomore who helps wait on guests at the ticking-covered tables, they cook, serve and clean up after as many as 36 diners.

"They never know what the hell they're going to eat," Mr. Newman said, with a twinkle of satisfaction as he put down the phone. Reservations are required and he'd just told a curious caller that they hadn't decided what they were going to serve. In a sense this was true.

"If it's a heavy night, we may have to switch from coq au vin to breast of chicken under glass," he explained.

DRINKS BEFORE DINNER

When the diners began to arrive, Gina Newman, petite in a long gown, with her hair drawn back, welcomed them and showed them into the bar. Mr. Newman, looking like a distinguished yacht captain in a blue blazer and a turtle-neck shirt, doubled as bartender and wine steward. Rusty served freshmade guacamole with corn chips to go along with the drinks.

Cows grazed in the twilight outside as the guests moved leisurely into the dining room. They were served manicotti, salad with special roquefort dressing, supremes de volaille sous la clóche and parfait for dessert.

The Miners Delight is open Wednesday through Sunday evenings, and the menu, which changes daily, includes blanquette de veau, tournedos with bernaise, rock cornish hen under glass, shrimp Stevenson, etc.

"As long as it's creative we enjoy it," Mrs. Newman remarked. Their only compromise with local dining prejudice is a reluctance to serve lamb, of which the Newmans are personally fond.

In the nineteen-fifties, the Newmans—regulars at "21," etc. were participants in the New York scene, with an apartment at 47 East 61st Street. Mr. Newman was an executive vice president at the Kudner agency, working on General Motors accounts, and his wife was executive editor of Living for Young Homemakers.

The Newmans first visited the town in 1958, when, at the suggestion of a doctor friend, they headed out for a fishing vacation at the Carpenter Hotel.

Miss Ellen Carpenter, then in her 70's, greeted the stylishly-garbed New York magazine editor with, "You can sleep in Cabin No. 1. The broom's here, the mop's there and the bucket's in the meat house."

Miss Ellen got the meals but the guests did the dishes. "During that month I wore out three pairs of rubber gloves," Mrs. Newman recalled.

Jim Carpenter, a prospector and the proprietor of the hotel, spent the month fishing with them—not as a guide, but because he liked to fish.

In the early nineteen-sixties high blood pressure forced Mr. Newman to take a year off. After six months in Mexico, they gravitated to Lander where Paul told Gina, "I'm not ever going back, I'm not going to die on Madison Avenue." Mrs. Newman said she "got passing-out drunk" over his decision and stayed in bed for two days. When he again said he meant it, Mrs. Newman had an answer ready: "I want to buy the Carpenter Hotel," she insisted.

"That's why we're here and not in the Virgin Islands," Mr. Newman said.

"After a couple of years we decided to try to make some economic sense out of it, and began planning a gourmet dining room," he continued.

"I didn't marry any man to be a cook," Mrs. Newman said. "But in New York we were like ships that passed at LaGuardia, and to fill the time while Paul was in Detroit, I enrolled in James Beard's Cooking School. Paul would come along when he was in town. Later we went to Dione Lucas's New York cooking school, too."

ENROLLED IN SCHOOL

One summer Mr. Newman took a six-week sauce course at the Sorbonne while his wife worked on a French chalet story for her magazine.

"When we told people we weren't going to serve steaks, they said we wouldn't make it," Mr. Newman said. "We're the highest-priced restaurant in the area. We don't give a choice of menu. The nearest customer is 35 miles away.

"But during the winter, when we're closed, they must get tired of steaks. Because on May 1, when we open for the year—if the roads are clear—there's a real rush of people. This May our business quadrupled."

The Newmans work at an easy pace in the hotel's remodeled kitchen. They cook on a standard kitchen electric range and a coal-burning stove. In the remoteness of their scene they have trouble getting supplies but finally have gotten Safeways in Lander to stock things like ricotta cheese and other special items.

"We're somewhat at the mercy of the meat and the ingredients," Mr. Newman said. "But we have the advantage of having eaten well and knowing good food. Maybe sometimes we burn the butter, but we know what we're trying for."

CRIED EVERY OTHER DAY

At first Mrs. Newman said she felt isolated in Wyoming. "I cried every other day for two years," she said. "When we went back to New York for the first time in four years and heard Beverly Sills we came back and there was nobody who even knew who she was. But now we keep getting interesting people from all over and I love it and Paul feels well."

Winters we're ski bums," she continued. "Paul cheffed for two winters at Park City [Utah], and one season at Aspen. Last snow season we spent at Steamboat Springs. This year, after we close at Christmas, Paul's thinking of taking the cordon bleu course in Paris."

RACE REALINEMENT BY BUSING

Mr. BROCK. Mr. President, does each of us recall the sense of pride we experienced in high school when we earned a spot as a class officer, a position on a top-flight athletic team, or as a member of an award winning band? Can we imagine what a really traumatic experience it would represent to be told that after all our efforts the prize would not be ours to enjoy—because some court decided there were too many of our race in the school, and thus we had to be transferred?

One such case is graphically narrated in the story from the Nashville Banner headed "Busing Realines Young Musicians." I ask unanimous consent that the article be printed in the RECORD. It merits our attention.

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

[From the Nashville Banner, Sept. 22, 1971]

BUSING REALINES YOUNG MUSICIANS

(By George Ene)

The extensive busing of Metro students has silenced four high school bands and scattered dozens of young musicians who were rezoned under the court-ordered directive.

Phased out because of the busing plan were bands from Cameron, Central, Cumberland and Isaac Litton.

Two other bands, Donelson and Two Rivers, were broken up as a direct result of the opening of the new McGavock Comprehensive High School.

Principals said most band members and cheerleaders reassigned to their schools were absorbed into their groups.

Of the 17 high school bands in Metro Nashville, the new McGavock marching unit is largest—150 strong. Hume-Fogg is the only school which does not have a band because it lacks facilities.

"We will be marching approximately 150 bandsmen in the beginning," said James Meely, principal of McGavock South—one of the four principals at the ultra modern educational plant in Donelson. "Before next year, it will be close to 200."

SCHOOL COLORS

The school colors—red, white and blue—were selected this summer by a student advisory committee made up of juniors, according to Chester LaFever, executive principal at McGavock.

"The students are going to vote on a name," LaFever explained.

Meely said the bulk of McGavock's bandsmen came from Donelson, Two Rivers and Cameron high schools—a few from Antioch and Glencliff.

"In choosing cheerleaders, we appointed three and one alternate from each school," Meely said. "Priority was given to seniors, and in the case of Two Rivers, we had to drop down and pick up a junior. All these students were cheerleaders last year."

At Hillsboro High, Principal N. Taylor Hagan said he picked up a number of band members from Cameron and Central.

"We are going to have about 74 members in the marching band this year," Hagan said. "Last year, we had about 60 in the band."

One cheerleader, who was elected co-captain at Cameron, has been added to the Hillsboro corps.

SCHEDULE PROBLEMS

"The real hangup here is that we are not able to get all the members in the band together at the same time because of our five-period schedule," Hagan explained. "But we are doing our best and it's working out well. We think we are going to have a good group."

Another problem at Hillsboro is band uniforms—most are worn out.

"We don't have enough of the right sizes and we are trying to make some other arrangements for uniforms," Hagan said. "We are thinking along two lines—altering the basic uniform so that we can have everyone alike, and attempting to find some other uniforms nearly like ours so they will blend in with the rest of them."

East High did not lose any band members or cheerleaders to other schools, in fact it picked up several musicians who Assistant Principal Hillary Martin says "are learning the marching routines and are expected to be incorporated into the band, depending on their musical ability."

TWO BANDS AT EAST

There are two bands at East—the 80-member marching unit (No. 1 band) and the primary band, made up of about 25 ninth and 10th graders, in addition to a few others who transferred from other schools.

"We picked up one cheerleader from Maplewood," Martin said. "Another student from Maplewood also was offered a spot on the cheerleading squad. She came to school and talked with me, but she has not reported for classes."

Five to eight Hillwood bandsmen are now tooting their horns in the 80-member Bellevue High marching band, according to Principal Buford Moran.

"We had approximately 64 last year," Moran said. "I don't believe we picked up any cheerleaders. We have nine."

The Joelton High band and cheerleaders, who were not affected by the busing order, are "in pretty good shape."

That's the word from Principal Doyle Smith, who said "the band and cheerleaders are about the same as last year."

DUPONT HIGH

Dupont High is in the same boat with Joelton—no crosstown busing, but its band this year is a little smaller because the ninth grade was phased out.

Principal Buford Jewell said the school has seven cheerleaders this year and about 64 musicians in the band.

The North High band expects to have 60 to 70 members this year, compared with about 50 last year.

"We received several bandsmen from Litton and Cumberland," Principal Riley Elliott said. "But we lost a good number of students to other schools. I'm sure this also includes a good number of bandsmen rezoned primarily to Maplewood, Glencliff and Stratford."

Elliott said North also picked up a couple of cheerleaders who were at Cumberland last year.

About 36 bandsmen from phased out Isaac Litton and a few musicians rezoned from North are now playing in the 80 to 85-member Stratford High band, according to Principal G. Bruce Sartor.

"Our band is a little smaller this year," Sartor said. "We lost a lot of kids who would have been in the ninth grade."

CHEERLEADERS

Five of Stratford's 12 cheerleaders were reassigned from Litton.

"If they were zoned to us, they are cheering," Sartor explained. "We opened up everything to them. If a student was in a position of leadership elsewhere, we honored it.

Goodlettsville High lost about 150 students to allow more room for the remaining students, but in the shift it lost 20 to 25 bandsmen to Madison and a few to Maplewood, Principal James Barrick said.

"The president of our student body was rezoned to Madison," Barrick said. "I understand he was given an opportunity to serve on the student council."

One cheerleader also was rezoned to Madison.

Goodlettsville had around 90 students in its band last year. This year it will have 65 to 70.

SENATOR DOLE REASSURES FAMILIES OF WAR PRISONERS

Mr. HANSEN. Mr. President, all of us this week, I am sure, were visited by some members of the families of those stouthearted American men who are held prisoner under inhumane conditions by the Communist forces in Southeast Asia.

I was honored by the visit of Mrs. Theodore Gostas, of Sheridan, Wyo., who has been a leader in my State and in the Nation of the very steadfast movement to achieve the release of these men, and to secure humane treatment for them while they remain captives. Major Gostas, her husband, has been a prisoner for too many years. Mrs. Gostas, with her great courage and faith, is typical of the heroic wives and mothers of the American men known to be prisoners or missing in action.

The distinguished Senator from Kansas (Mr. DOLE) had the honor on Monday to address this great group of Americans, the families of those captive or missing. His words were consoling to these people, and he emphasized that President Nixon "has unequivocally stated a number of times that American forces will remain in South Vietnam until our men have been released."

Mr. President, I ask unanimous consent that the text of Senator DOLE's remarks be printed in the RECORD.

There being no objection, the remarks were ordered to be printed in the RECORD, as follows:

ADDRESS TO THE FAMILIES OF THE POW'S AND MIA'S

I appreciate what an ordeal you have been through, an ordeal which continues and whose end cannot be foreseen.

You have gone through a long period of agony, not the least of whose torments has been the uncertainty of what has happened to your loved ones, to say nothing of what might happen to them in the future.

The North Vietnamese acceded to the Geneva convention in 1957. This convention, as you know, was designed to assure humane treatment for prisoners of war. The Communists have cynically flouted this convention and, in so doing, have acted as if they actually enjoyed doing so.

Not only that. The enemy has behaved toward you almost as cynically and cruelly as toward the prisoners. Recent events, I think, have demonstrated conclusively that the Communists never had any intention of releasing their captives without a complete and speedy surrender by the United States in Vietnam. Hanoi demands such an abject capitulation by the United States that, in my opinion, many of those now called for an end to the war would immediately reverse their positions and criticize the terms of surrender. Moreover, this surrender could be the prelude for the butchery of the Vietnamese and others in Laos and Cambodia who have opposed the North Vietnamese and their designs. This butchery could end up with millions dead and the blood bath would take its place in history with those carried out by Hitler and Stalin.

NEVER INTENDING TO AGREE

What are the facts? The Communists have played the familiar cat and mouse game with you and, finally, convinced that the United States will not surrender in Vietnam, have made it brutally plain that they never had any intention of agreeing to any reasonable plan for release of your kinsmen.

Furthermore, they have misled prominent and sincere Americans with hints that they would be flexible on the prisoner of war issue and would compromise on their seven points for the settlement of the Vietnam war, a document which not only called for the United States to capitulate but to grovel before the enemy.

For example, Senator George McGovern of South Dakota, told reporters in Paris on September 11 that he had been assured by top Communist negotiators in Paris that the enemy *would agree* to separate the question of U.S. troop withdrawal from the political future of South Vietnam, including their demand for the cessation of support for South Vietnamese President Thieu. He made his statement after what he said were six intensive hours of conversation with Xuan Thuy, the top Hanoi negotiator, and Dinh Ba Tri, deputy Vietcong delegation chief. McGovern also said that his informants had said that the Communists would not insist on cessation of American financial aid for the Saigon government, or arms shipments to it, as a condition for freeing our prisoners.

COMMUNIST DOMINATION

As if deliberately to refute and embarrass Senator McGovern, who relied on what the Communist spokesmen had told him, the Hanoi delegation in Paris on *September 16*, stated that it stood by all seven of the points in its so-called peace proposal of July 1, 1971. The statement continued that the *two most* important of the seven points were *withdrawal* of all U.S. troops and allied troops in 1971 and the *dismantling of U.S. Military bases*. The withdrawal, the Communists said, must include advisers and technical personnel. The other point stressed that President Thieu must be thrown out of office and a Government set up which, in effect, would have North Vietnamese approval—meaning a Communist dominated regime.

HANOI TOUGHENS TERMS

In the Washington Post, Jonathan C. Randal said under a Paris dateline of September 16 that the Hanoi negotiators had toughened their peace terms, adding:

Nguyen Thanh Le, Hanoi's press spokesman at the stalemated peace talks drove home the change by insisting the Vietcong's seven point peace program 'forms a whole' and that it was 'indispensable to reach agreement on the whole' package program.

More optimistic impressions voiced by Senator George McGovern (D.-S.D.) and a hitherto unquestioned statement by Le Duc Tho, a Hanoi Politburo member, were left in shreds.

Furthermore, the Hanoi delegation in Paris left in "shreds" their propaganda campaign which has led many of you to believe that fixing a date for the withdrawal of American troops from South Vietnam in 1971 would bring your loved ones home quickly.

Let me say here and now that the history of our negotiations with North Vietnam proves that only the Communist belief that they cannot win the war will bring the release of the American prisoners of war. The alternative is acceptance of the seven points, which means complete surrender. Even this might not bring your husbands, fathers and brothers home, for the seven points and their meaning could be argued about for months and even years after the Communists had achieved their objective of conquering South Vietnam following a surrender without precedent in all American history.

HANOI PROPAGANDA MISLEADING

Hanoi's propaganda on the prisoner of war issue has been skillful and sustained and has fooled, as I have stated, many Americans who want peace and the release of the men held in Communist prison camps. Clark M. Clifford, Secretary of Defense under Lyndon Johnson said on July 11, 1971, that *he had reason to believe* that all this country had to do to get the prisoners back was to set a date for the withdrawal of our military forces from Indochina. *He did not* name the persons with whom he talked. However, all indications were that his information came from North Vietnamese spokesmen in whom he had confidence. The Clifford proposal was supported by Averell Harriman, a most distinguished American, who was the American chief negotiator in Paris during the early peace negotiations with Hanoi.

A few days earlier, an experienced New York Times correspondent, Anthony Lewis, wrote under a Paris dateline that a "high ranking North Vietnamese leader (Le Duc Tho, Hanoi member of the Politburo) says that the new Communist offer to return American prisoners of war if American forces are withdrawn by the end of 1971 *is not dependent* on a political settlement in South Vietnam". This was the statement which *Mr. Randal* had referred to in the article I have quoted in part.

I do not mention Mr. Clifford, Mr. Harriman and Mr. Lewis for the purpose of embarrassing them. Many others as well known and who are earnestly trying to find a way to free the prisoners believed the North Vietnamese propaganda.

The outcry for the release of the prisoners in return for fixing a withdrawal date for American forces rose in volume after President Nixon said that a residual force would be maintained in Vietnam as long as American soldiers were imprisoned by the Communists. I do not wonder that some of the anxious families were deceived into thinking that this country, since it is steadily withdrawing troops from Vietnam, should fix a date for getting our men out altogether so that their loved ones could come home.

Now, however, the pretense that the prisoners of war would be sent home if only we would set a date this year for troop withdrawal has been completely abandoned.

As I indicated, the Communist delegation in Paris almost immediately acted as if deliberately seeking to discredit Senator McGovern and others who have been led to believe that release of your husbands, fathers and brothers, could be affected by simply tying it to the return of all American troops.

PRISONERS USED AS PAWNS

In other words, the Communists have duped Americans who believed their propaganda about their American captives. They have used our prisoners as pawns.

I will not go into details about the convention which provides, among other things, that representatives of the International Committee of the Red Cross or other neutral intermediaries, may inspect the prison camps to see how the captives are being treated. They have made a mockery of every article of the Convention which provides for humane treatment of prisoners of war. Moreover, our men have been denied mail privileges, gifts sent to them at Christmas have been returned, and in 1966, North Vietnam paraded captured American servicemen through the streets of Hanoi, announcing that it intended to try them as war criminals. The resultant world furore apparently changed their minds about the trials. The list of crimes perpetrated against the POW's does not end with those I have mentioned but is lengthy and extremely depressing.

Most of the news which the United States has had about the POW's comes from a vehement antiwar group in New York, among whose leaders are the activists David Dellenger and Mrs. Cora Weiss. Ostensibly, this group has been established as a liaison committee with the American prisoners. In reality, it exists as a vehicle for Hanoi propaganda and it supports, almost without deviation, the Communist line in Vietnam.

COMMUNISTS USE PRISONERS FOR POLITICAL ADVANTAGE

This group has given out the names of some 475 men which it says are prisoners. But over 1500 Americans are either prisoners of war or are missing in action. If the Weiss-Dellenger Committee has a pipeline into Hanoi, why are we not told something about the men unaccounted for. Once again, it seems clearly evident that the Communists are interested in the prisoners only to gain some political advantage from them. We are dealing with an enemy which has no consideration whatever for American prisoners as human beings. Nor do they have any consideration for your feelings, save to try to take advantage of your agony and suffering.

POW/MIA ISSUE GIVEN PRIORITY ATTENTION

As I am sure you already know, the President has indicated many times in his public statements that the POW/MIA issue will be given top priority attention by his Administration and settled separately from the political questions. He believes this is in the best interest of our men.

Toward that end, we and the Republic of Vietnam have often proposed to the Communist side the reciprocal release of prisoners of war held by both sides. In their statements of October 7 and December 10, 1970, the President, Ambassador Bruce and South Vietnam's delegate in the Paris meetings proposed the release of all North Vietnamese prisoners of war held outside South Vietnam. Hanoi's leaders and the other Communist authorities in Indochina have rejected all such offers.

In addition, the Republic of Vietnam has, with our support, on a number of occasions released prisoners of war. We deeply regret that North Vietnam has not responded to these prisoner releases.

URGE NORTH VIETNAM TO COMPLY WITH GENEVA CONVENTION

The United States has appealed privately and publicly to not only signatories of the Geneva Convention on prisoner treatment, but to all member countries of the United Nations in order to force the North Vietnamese to comply with the Convention. Statements containing paragraphs excerpted from the Convention have been made by Administration spokesmen at the U.N. General Assembly, and resolutions have been adopted by the United Nations and by the U.S. Congress. These resolutions call upon all parties to any armed conflict to comply with the terms of the 1949 Geneva Convention.

We have constantly emphasized that the North Vietnamese should, at a minimum, permit international inspection of the POW camps in North Vietnam, furnish a complete listing of all the POWs now held in North Vietnam, and permit regular communication between the POWs and their families.

While our efforts have been generally unsuccessful in forcing North Vietnam compliance with the Convention, we have effectively prevented the North Vietnamese from trying U.S. POWs as war criminals. We have also observed that the North Vietnamese in the face of an international outpouring of humanitarian concern, have gone to some length to project the image that the POWs are receiving adequate care. These are small but positive interim contributions to the welfare of our POWs.

PRESIDENT NIXON SEEKS FREEDOM FOR OUR MEN

Other indications of the extent of the Administration's concern can be found in the special missions of Frank Borman and Postmaster General Blount and the dramatic rescue mission at Son Tay. Finally, the President's statement of support for South Vietnam's proposal that the POWs be interned in a neutral country is just one more example of how President Nixon intends to leave no stone unturned in seeking freedom for our men.

President Nixon believes that the present policy of withdrawl of U.S. forces steadily and by orderly states, as the South Vietnamese are strengthened, keeps an incentive for Hanoi to negotiate a political settlement and/or an early prisoner release. The President believes this policy is in our best national interests and the surest way to bring about an honorable peace for the peoples of Indochina, as well as the surest way to get our men back. I don't have to remind you that he has unequivocally stated a number of times that American forces will remain in South Vietnam until our men have been released.

A TRIBUTE TO THE NATIONAL LEAGUE OF FAMILIES OF PRISONERS OF WAR AND MISSING IN ACTION

Mr. BROCK. Mr. President, it has been my privilege to work with the families of our servicemen missing in action or known prisoners of war in both legislative bodies of Congress in their efforts to influence the North Vietnamese and others holding these men to abide by the Geneva Convention on the treatment of war prisoners.

I have the highest admiration for the courage, faith, and love of country which sustains them in this continuing ordeal. This knowledge of the bravery of wives and children, and mothers and fathers, prompts my gratitude that the President of the United States chose to make a personal visit to the dinner meeting of the National League of Families of Prisoners of War and Missing in Action to reassure them that their Government is tireless in its efforts on behalf of their loved ones even though those efforts have been rendered fruitless by a ruthless enemy. I ask unanimous consent that the President's remarks by printed in the RECORD.

There being no objection, the remarks were ordered to be printed in the RECORD, as follows:

REMARKS OF THE PRESIDENT AT THE ANNUAL MEETING OF THE NATIONAL LEAGUE OF FAMILIES OF AMERICAN PRISONERS AND MISSING IN SOUTHEAST ASIA

Mrs. North, Mr. Secretary, all of the distinguished guests who are at the head table and all of those who are in this audience:

I have spoken in this room many times over the past, believe it or not, 24 years, starting as a Congressman. I can assure all of you that this brief remark that I will now address to you is spoken more from the heart, I think, than anything I have ever said before.

The Secretary of Defense—and I have had an opportunity to read his remarks and endorse them—will address you later. He will tell you what we have been doing, what we are doing, what we hope to do with regard to the great objective in which all of you and all of us are interested, and that is obtaining the release of all of our POW's and missing in action wherever they may be in Southeast Asia.

But I wish to underline what the Secretary will tell you by indicating the personal commitment of the President of the United States. As you can imagine, whoever holds the office of the Presidency cannot take upon himself all of the various assignments that come across his desk. Much must be delegated.

I want each and everyone of you to know, however, that from the time in the White House Library, at Christmas time, 1969, I met a group of wives and one mother of some POW's and missing in action, from that time, as the Secretary of Defense can tell you, and the Secretary of State can tell you, I have considered the problem of obtaining the release of our POW's and missing in action as being one that has Presidential priority.

I can assure you that every negotiating channel—and now I say something here that I am sure all of you will understand—including many private channels that have not yet been disclosed, have been pursued, are being pursued and will be pursued.

I can assure you that with regard to this problem, that whenever any matter comes to the attention of the Secretary of Defense, or the Secretary of State, from a Senator or Congressman or the rest, it is brought to my desk and we run out the lead, whatever it may be.

You know the tragedy we have found so often—hopes are raised and then dashed, because we are dealing here with a savage enemy, one who has no concern for humanitarian ideals.

But on the other hand, we believe that it is essential to check every possible lead; we don't care where it comes from. We are doing that.

I have personally ordered that and we will continue to do so, and I believe that we will eventually succeed in our goal. That is my commitment that I make to all of you.

Now, I have delayed your dinner too long, but I would like to add one other rather personal note. Many times when I travel around the country, people—particularly young people in school—will say, "You know, Mr. President, that must be a terribly awesome responsibility to serve as President of the United States." And people sometimes feel that all of the great burdens of the world are on the shoulders of the President and that the responsibilities are indeed awesome. I would be less than candid if I were not to say that the responsibilities are heavy.

But let me tell you something: Any day that I sometimes feel that it has been a rather hard day and that I have had to make some real tough decisions, and I haven't had very much support, and any time I begin to feel a bit sorry for myself, I think back to that day just before Christmas in 1969.

I think of airports where children have come up and said, "My daddy is missing in action." I think of the wives who I have seen and the mothers and the rest. I think of their courage and what they have done and what they have given for their country, and then I realize my job isn't all that hard.

I am just so proud of how great you have been and I am not going to let you down.

FORCED BUSING OF CHILDREN

Mr. BAKER. Mr. President, on September 22 my colleague from Tennessee (Mr. BROCK) and I, accompanied by the mayors of Memphis, Nashville, and Chattanooga, spent 2 hours with Attorney General Mitchell and Secretary of Health, Education, and Welfare Richardson for the purpose of discussing the very serious problems posed in the State of Tennessee by court-ordered school desegregation plans requiring large-scale forced busing of schoolchildren. The discussion was frank and useful.

Among the various remedies to the situation that were discussed at the meeting was the alternative of intervention by the Justice Department in one or more school desegregation cases with the hope that the Supreme Court might be persuaded through a forceful presentation of logic and the law that the busing of schoolchildren for the purpose of achieving an artificial racial balance is not, in fact, required by the 14th amendment to the Constitution.

I was heartened to learn yesterday that the distinguished assistant minority leader, the Senator from Michigan (Mr. GRIFFIN), has also met with the Attorney General to urge his Department's intervention. The problems raised by forced busing are by no means limited to the southern region of this country, and the opponents of forced busing are by no means segregationists or reactionaries. I know of few men who have taken so enlightened and progressive a role in the field of civil rights for all Americans as has the distinguished junior Senator from Michigan. His record shows that. But forced busing is not an issue of civil rights, as we have known that term.

Busing is a national problem of major proportions and one that is likely to grow rather than diminish in the months and years ahead, unless the Federal judiciary is able to clarify what is now a situation characterized only by bitterness and confusion. I am grateful to Senator GRIFFIN for his contribution to the national debate on school busing. I ask unanimous consent that Senator GRIFFIN's September 24 statement be printed in the RECORD.

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

STATEMENT

DETROIT, MICH.—U.S. Senator Robert P. Griffin today issued the following statement:

Most parents, black and white, want quality *and* equality in educational opportunity for their children.

Those goals can eventually be reached if we make sure that job opportunities are really equal; that housing opportunities are really equal; and if we reform the system of financing education so that the quality of education available to children of poorer families is raised to the level of education available to the wealthy.

As one who wants to make more and more progress toward racial equality and an integrated society, I am deeply concerned that forced busing solely for the purpose of achieving racial balance is counter-productive. Instead of helping in the effort to promote better race relations, it is resulting in more bitterness and more polarization. Unfortunately, forced busing is greatly accelerating the flight to the suburbs and beyond.

Along with President Nixon and Senator Muskie, I don't like forced busing. And that is the position of the overwhelming majority of the people, black and white.

I don't believe I have to say that I am, and have been, for equal rights and against discrimination. During my 15 years in Congress I've had the opportunity to support and vote for every civil rights bill that has become law since Reconstruction days following the Civil War.

I also believe the laws of the land must be enforced—even those we do not like—and court orders must be observed, including those that are being appealed. I deplore the criminal acts of the few who resort to violence and take the law into their own hands. They should be swiftly prosecuted.

I know that most people are willing to obey the law—even laws they don't like. But in fairness it is essential that they know exactly what the law requires.

Recently Chief Justice Burger indicated that some district courts are going beyond constitutional requirements in ordering forced busing. The position of the President of the United States is at odds with what seems to be the position of the Court.

Needless to say, there is too much confusion at present, and it is important to have clarification as soon as possible.

There are a number of suits involving forced busing which are on their way to the Supreme Court right now. At present, the Justice Department is not a party to these suits.

For example, I refer to suits affecting Pontiac, Michigan and Nashville, Tennessee.

Yesterday I met with Attorney General Mitchell. I suggested and urged that the Justice Department intervene in these cases and perhaps others. Because the public is so important, I do not believe the Justice Department should remain on the sidelines and leave the arguments to counsel for private parties. Such a move makes sense, particularly since the Administration already has a position which has been spelled out by the President.

While I would hope that forced busing could be kept to a minimum, I want to reiterate a position I took in 1967. I would not favor a cut-off of federal funds for voluntary busing.

The magnet school program in the City of Detroit is a good example of how busing can be an important part of a voluntary program to improve the quality of education.

Back in 1967, Senator Dirksen offered an amendment which read as follows:

"No funds authorized in this or any other Act shall be used to pay any costs of the assignment or transportation of students or teachers in order to overcome racial imbalance."

I offered an amendment to his amendment which read as follows:

"Following the word 'imbalance' and before the period at the end of the amendment, insert the following: 'unless such use is in accordance with a policy formally and freely made by the affected State or by the affected local educational agency without the exercise of direction, supervision or control with respect thereto by any Department, agency or officer of the United States.' "

I disagreed with Senator Dirksen at that time because he wanted to cut off federal funds for *voluntary* busing as well as forced busing.

HEALTH CARE COSTS AND PHYSICIANS' INCOME

Mr. KENNEDY. Mr. President, on September 13, the New York Times published two significant articles concerning the soaring cost of medical care in this country.

The first article, a major analysis by Richard Lyons, entitled "Dilemma in Health Care: Rising Cost and Demand," computes the increases in health care charges over the years in a variety of categories, and discusses some of the possible reasons behind the increases. In today's inflated economy, the increasing cost of good medical care is a problem of serious proportions. The reasons cited by Mr. Lyons range from inflation and our larger population to modernization of medical techniques, high drug costs, and the spiraling medical fee-insurance rate syndrome. Though some hospitals and private physicians have practiced time and money saving techniques, it is obvious that we have a long way to go before we achieve maximum quality health care at a reasonable cost to the consumer.

The second article, entitled "Doctors' Median Income—$40,550—Spurs Fee Debate," written by Nancy Hicks, contrasts the average yearly earnings of a physician in America to that of professionals in other fields. The article states, among other things:

Doctors are the highest paid workers in the country, even when salaries are adjusted for business expenses, hours of work, and delayed earning power.

In spite of the fact that the consumer equates high fees with better service, we are still faced with the difficult problem of obtaining quality health care delivery and health maintenance for people of lower income levels, and it remains an ever-worsening dilemma.

Mr. President, because of the growing public interest in the problems of health care in America, I believe that these two articles would contribute to better knowledge and understanding of these problems. I therefore ask unanimous consent that they be printed in the RECORD.

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

DILEMMA IN HEALTH CARE: RISING COST AND DEMAND

(By Richard D. Lyons)

WASHINGTON, September 12.—A decade ago, one medical group in Manhattan charged $35 for a basic physical checkup; today it charges $65. In those same years the going rate for an appendectomy in New York rose from $485 to $1,175 and the cost of an average hospital stay, for the nation as a whole, rose from $265 to $785.

Indeed, Americans are spending money on health care as if there were no tomorrow.

And while almost everyone is complaining about spiraling health care costs, most of the same people—rich and middle class as well as poor, insurers and providers as well as consumers—are also demanding more and better health care no matter what it costs.

The statistics for medical costs, at a time when accumulated inflation has swollen most economic indicators, are staggering. This year Americans—through their own pocketbooks, their Federal, state and local governments, and their health insurance companies—will spend almost $80-billion for such things as 15 million operations, two billion prescriptions and the salaries of the five million people who provide health care.

One conservative Federal estimate sets the nation's total health bill by 1980 at $156-billion, which would be 8 per cent of the gross national product and over five times the peak annual cost of the Vietnam war.

"I think medical care is going to be the Vietnam of the nineteen-seventies—billions and billions of dollars going into a quagmire," says Dr. Frederic Bass, a health planner at the University of Pennsylvania.

In this era of inflation, no other item on the Consumer Price Index has risen so fast over the last decade as health costs. In the last four years alone, they have climbed 30 per cent.

Hospital rates have risen five-fold. Today they are hovering at about $100 a day, an unthinkable sum a decade ago. But a decade from now, according to some projections, hospitals may be charging $1,000 a day. At one Boston hospital, a bed in the intensive care unit for respiratory diseases now costs $425.75 a day.

Such statistics provide only a partial picture, however. Behind them there is a long period of dramatic progress in medical technology and, along with it, an unquantifiable but almost tangible rise in public expectations. And at the conjunction of all these factors are two fundamental questions:

If, theoretically, good health care is now possible for everyone, then how can the nation rationally allow anyone to go without it? But if, practically, the cost of good health care continues to rise so steeply, then how can the nation maintain even its present standards for long without going bankrupt?

Personal "horror stories" of the financial and emotional costs of illness are seemingly endless: A New York couple is financially ruined by the medical costs of a son paralyzed by a football injury; an elderly black couple in Mississippi spend one-third of their meager Social Security check on medicine; a Californian undergoes a kidney transplant to save his life, yet does not have the funds to buy the drugs to keep it viable.

Ranging from Robert Ball, the director of the Social Security Administration, to Paul Stark, the head of a defunct Federal health center in Prestonburg, Ky., many medical administrators feel that the country is either spending too much money on health care or is not getting its money's worth.

The reasons for this surge in spending include:

Inflation, which accounts for half the recent rise in health costs.

More Americans, 20 million more in the last 10 years.

Medicare and Medicaid, which accelerated the demand for services and helped to drive up their prices.

A philosophical shift to the new general opinion that health care is a right of every American, not just a privilege of birth or money.

More sophisticated medical techniques, such as open-heart surgery, that lead to better medical care but at greater cost.

Unionization of hospital workers, which gives higher salaries and more costly fringe benefits to a group that has been among the lowest paid in the nation for decades.

There are other reasons, but they are much harder to document with numbers. Critics of the national health care system—many call it a nonsystem—say it has and is creating vast inequities. For example, in New York City it is at times almost impossible to find a hospital bed, but half the beds in San Francisco hospitals are empty and more hospitals are opening there.

The critics hold that there are vast inefficiencies in the prescription of drugs, the payment for health insurance and the services provided by both hospitals and doctors. For example, a favorite remark of Senator Edward M. Kennedy, the Massachusetts Democrat who is the chief Congressional critic of the health care system, is that there are more neurosurgeons in his home state than there are in the British Isles, which have 10 times the population.

Another trouble is that the flood of new money into health care has not been matched by an increase in efficiency. In fact, it seems to have acted in reverse in some permutation of Parkinson's law.

"It costs more and more all the time to stand still," says John G. Veneman, Under Secretary of Health, Education and Welfare. Mr. Veneman and other Nixon Administration officials were appalled by health costs when they took office, but Federal expenses have continued to shoot up despite their efforts.

Where does all the money go? Principally to hospitals, doctors, drugs, medical appliances, nursing homes and, as overhead, to the health insurance companies such as Blue Cross and Blue Shield that spread the risk of becoming ill.

Portions of the health care pie are divided roughly this way: 40 per cent for hospital care; 20 per cent for doctors' services; 10 per cent for drugs; 6 per cent for dentists' services, and 4 per cent for nursing home expenses. The remaining 20 per cent is divided among such items as medical research, construction of facilities, and administration.

Nearly every critic of the health care system believes Americans are spending too much money on drugs. Dr. Henry E. Simmons, chief drug officer of the Food and Drug Administration, estimates that "Americans spend half a million dollars a year on drugs for which there is no valid proof of efficacy."

Just recently the F.D.A. succeeded in removing from public sale a drug named Panalba after a legal battle that ran on for years. During that time consumers were spending $30 million a year on the product, even though Federal judges as well as Federal scientists had found it to be ineffective.

HIGH DRUG PROFITS

While drug prices have not risen dramatically, the pharmaceutical industry reaps the highest profits in terms of return on investment—20 per cent—of any large segment of American industry. Congressional investigations have revealed huge profits in some specific drugs—of over 1,000 per cent in isolated cases—yet drug companies have successfully turned back most attempts to reduce prices.

Another factor is doctors' fees. "You can't reform the health care system unless you delve into the pocketbooks of doctors," says Dr. Robert D. Eilers, director of the Leonard Davis Institute of Health Economics. He notes that one medical group recently hired a surgeon for a salary of $85,000 a year "plus bonuses."

Doctors, the most highly paid professionals in the country, earn a median income of $40,550 a year—after expenses but before taxes—according to one calculation. Only 1 per cent of Americans earn as much as this. Federal economists estimate that doctor's fees are almost 70 per cent higher than they were in the late nineteen-fifties, a rise almost double that of the Consumer Price Index.

Yet doctors have their own economic problem. Premium rates for medical malpractice insurance, for example, have been soaring. One New York surgeon said he paid an annual premium of $50 when he started practice in 1950. He expects that next year's premium will be $5,050, a hundred times as much. This expense he passes along to the consumer in the form of higher fees.

HAVE TO PUT THE CRUNCH ON

Despite all the complaints about drug costs and doctors' fees, most of the grumbling over the rise in health costs has been directed at hospitals. For hospitals have been getting the lion's share of health expenses.

The most common criticism has been that the hospitals have never had the incentives needed for them to effect economies. In addition, most hospitals are controlled by doctors who are unfamiliar with the modern management practices that might curb costs.

"Hospitals are the problems, but Blue Cross hasn't pushed them hard enough," says Dr. Herbert S. Denenberg, the new Pennsylvania insurance commissioner. "You have to put the crunch on someone if you're going to control medical costs."

In a rare effort to force economies, the insurance commissioner rejected a $73-million premium rate increase request from Blue Cross of Greater Philadelphia, which has been awarded an annual increase for the last quarter century. He wants to retain Blue Cross, but force it in turn to force hospitals to effect economies.

Dr. Denenberg, one of the new breed of reformers in the health care field and a friend of Ralph Nader, the consumer advocate, also accuses the other private insurance companies of "just shoveling money back and forth—they have not paid attention to cost and quality controls."

The Pennsylvanian is one of 20 new state insurance commissioners who have taken office in the last year. Many of them are determined to force economies in health costs. Others include Kenneth Deshetler, Ohio's director of insurance, and John F. O'Leary, chairman of the Massachusetts rate-setting commission.

Mr. O'Leary wants state and Federal agencies to intervene to force down hospital costs and some states, including New York, Maryland, California and Pennsylvania, are considering the creation of hospital rate setting commissions similar to those that regulate transportation, electric and gas rates.

Gordon Chase, head of the New York City Health Services Administration, accuses hospital leaders of using "quality of care" to "obscure inefficiency, obsolescence and traditional ways of operating which will not stand close scrutiny."

Three-quarters of all hospital bills are paid through Blue Cross, which was specifically created to perform the task. Yet Blue Cross has gone almost unregulated. Congressional investigators found recently that some local plans were paying the country club dues of Blue Cross executives, while others were paying for executives' vacations in Hawaii.

The national president of Blue Cross, Walter J. McNerney of Chicago, conceded that the hospital insurance plan "has not done everything as well as it should" to hold down hospital rates. "We have not been sufficiently self-critical and innovative," he adds.

How could hospital costs be brought down? The Good Samaritan Health Service in Phoenix found a way by amalgamating a group of 10 hospitals, thus doing away with duplicating services and overhead. The group saved $90,000 last year by buying all its insurance as a package. Common laundry services and the standardization of linens and uniforms all would help, but relatively few groups of hospitals have done this.

Costs could also be constrained by clusters of hospitals if individual institutions were assigned specific tasks, such as delivering babies and performing open-heart surgery, rather than each offering a full range of services.

Keeping people out of the hospital is uniformly acknowledged as the most effective method of holding down costs.

The patient population of Philadelphia State Hospital dropped from 6,400 to under 3,000 in recent years, aided by the creation of the West Philadelphia Mental Health Consortium, a group of nine community mental health clinics.

Dr. Robert Leopold, the consortium's director, says that while costs per patient are $6 a day at the health centers, they are $15 a day in the state hospital. The Philadelphia program, one of only a few in the nation, "shows that psychiatric patients can be treated near their homes outside the hospital and at far less cost," Dr. Leopold says.

Large cost savings are also possible through the operation of what are known as prepaid group practice plans, of which the most familiar are the Kaiser foundation groups of California, Oregon, Hawaii, Colorado and Ohio.

By stressing preventive medicine, that is, treating potentially serious medical conditions before they can grow into costly diseases, persons enrolled in the Kaiser groups spend less than half as many days in hospitals are other Americans. Premiums for Kaiser care are also less than comparable insurance plans, while the annual increase in premium rates has been less than elsewhere.

The money-saving potential of providing preventive services, such as periodic physical examinations and flu shots, has been demonstrated by the Group Health Cooperative of Puget Sound in Seattle, which was started in 1947 and now provides health care for 140,000 peopole.

Last year the group health cooperative spent only $37 per member on hospitalization. This compares with $112 for the average American. Yet almost the same amount of money was spent for both groups for physicans' fees and outpatient services such as laboratory tests and X-rays. The lesson would seem to be that preventive medicine, properly run, can substantially reduce costly hospitalization.

A Federal takeover of health delivery systems, as occurred in Britain, has been advocated by some groups here. But at least two experiments with Federal funding in this country have indicated that it is little better economically than the system it is meant to replace.

In Prestonburg, Ky., one such project was canceled by the Office of Economic Opportunity after investigators found it to be not only delivering few services but also "totally corrupt." More than half of the $4-million spent on the project went for the salaries of courthouse cronies and overhead expenses.

Another federally funded project, the Martin Luther King Health Center in the Bronx, spends $75 per patient visit, far more than it would cost to treat a person in a doctor's office.

The Nixon Administration is spending $45-million on what might be one partial solution to the health cost problem—the health maintenance organization. The H.M.O., as it is known, has been praised by the President as

the prime new method of organizing health care delivery for quality and economy.

H.M.O.'s, a few of which are now in operation, use groups of doctors and facilities to treat the health needs of thousands of persons living in specific areas. In his health message of last February, Mr. Nixon also proposed a $300-million loan guarantee program to start dozens of H.M.O.'s. If the Administration has its wish, 80 per cent of all Americans will be enrolled in H.M.O.'s by the end of the decade.

This percentage is viewed as wildly optimistic even by those health care experts who say that reform of the system is absolutely necessary to bring better medical care to more people at less cost.

One of the new breed of reformers who are leading the attack against wasteful and inept practices in the health care field is Dr. Denenberg of Pennsylvania. Dr. Denenberg is the type of free wheeling challenger of the medical establishment who, according to one critic, makes Ralph Nader "look like Louis the Fourteenth."

"The health delivery system is so full of glaring inefficiencies and abuses that it is easy to give up in despair," says Dr. Denenberg. "For example, the providers of health care saddle the public with unnecessary, underutilized and duplicated services which not only produce astronomical costs, but also often deliver low quality care."

The complaints come from within the medical establishment as well. Dr. Edwin L. Crosby, president of the American Hospital Association, says the nation has too many hospital beds. And one of the truisms of medical practice holds that too many operations are being performed on too many people.

The result, according to Dr. Murray Hunter, medical director of a clinic in Fairmont, W. Va., is that "for a dollar today we're getting 50 cents worth of health care—if it were done right we'd get 80 cents worth."

Another problem is that merely increasing the money spent on health care does not necessarily lead to better-quality care. As Dr. Donald Harrington, director of the San Joaquin Medical Foundatiton in Stockton, Calif., puts it: "An open checkbook often leads to bad work."

Yet some doctors seem to be benefitting by such an approach. Dr. Lowell E. Bellin, New York City's first deputy health resources commissioner, says: "If after two years in private practice a doctor isn't clearing $35,000 a year, you should strap an electoencephalograph to his brain to find out why."

DOCTORS' MEDIAN INCOME ($40,550) SPURS FEE DEBATE

(By Nancy Hicks)

There is probably no more emotional, controversial or complex issue in the current debate over health care reform than the earning power of the physician.

Critics of doctors' high salaries—the organized poor, health consumer groups, some economists and many doctors themselves—say it is unconscionable that one professional group of 334,000 individuals should earn a median income of $40,550 a year or more.

They cite such current practices as the use of incorporation to allow doctors tax and pension benefits, which the Internal Revenue Service has opposed but has been unable to stop, and fee fragmentation, which might mean that last year's flat-fee checkup is now broken up into individual charges that add up to more than the old fee, with no announced increase.

Doctors say their critics fail to take into account the long years of study, internship and even "apprenticeship" before a doctor can begin to earn a good living. They also cite the high cost of a medical education, and doctors' long working hours and their responsibilities.

HIGHEST PAID WORKERS

Whatever the merits of the arguments are, a look at the available figures shows that doctors are the highest-paid workers in the country, even when salaries are adjusted for business expenses, hours of work and delayed earning power.

During the last two decades, the cost of doctors' services has risen at a rate almost double the increase of the Consumer Price Index, Federal economists have estimated. This is in direct contrast to the trend in the post-World War II era, when doctors' fees lagged behind the cost of living.

In the last decade, doctors' fees have risen faster than any other medical cost except hospitalization, and there are no figures on which to estimate the proportion of hospital operating costs that go to interns, residents, chiefs-of-service, physician-administrators, salaried physician-researchers and to a growing number of salaried staff specialists.

In general, figures for recent years are relatively scarce. The Bureau of Labor Statistics does not keep data on doctors' incomes as it does, say, for office workers'. Most information comes from the journal, Medical Economics, from individual surveys by economists or professional societies, or from the Census Bureau or the Social Security Administration, neither of which has current figures available.

According to the continuing survey of Medical Economics, the median income of physicians under 65 in private practice in 1969 was $40,550 a year, after expenses but before taxes. A comparable survey by the American Medical Association showed an average annual income of $35,510 in 1968. By way of contrast, lawyers' average income, according to a 1970 survey by the American Bar Association was $27,960 a year.

REASONS FOR HIGH INCOMES

There are various theories that attempt to explain why doctors' earning power is so great.

The first is the Adam Smith principle of supply and demand, which says that doctors earn more because they are in short supply. Estimates of manpower shortages in medicine range up to 50,000 trained physicians, a shortage that some critics attribute in part to past efforts of the A.M.A. to keep the supply limited.

In 1910, when the influential Flexner Report of Medical Education called for an increased emphasis on science in medical education—there were 164 doctors per 100,000 population in this country. In 1967, there were 130 per 100,000, up from 124 per 100,000 in 1963.

More than a decade ago Lee Loevinger, an Assistant Attorney General in the Kennedy Administration, tried to figure out why doctors were earning more money than lawyears.

Mr. Loevinger attributed the differential to the stringent controls over accreditation that physicians had maintained. These led to the certification of fewer schools, he said, and therefore, to the graduation of fewer doctors.

An attempt has been made to reverse this trend. Twenty new medical schools have been created over the last 10 years. The number of graduates increased by 33 per cent in 1967, when compared to 1950.

POLICIES EFFECTS PERSIST

But the effects of old policies are still being felt. Although the number of physicians who graduated has increased, the general population has also increased by 30 per cent during the same period. And an analysis of last year's medical school applications showed that the schools rejected for lack of space a total of 100,000 "qualified candidates," twice the number of the estimated shortage.

Although most doctors must now undergo about 10 years' post-high school education, the American physician in the mid-1960's completed an average of 17.5 years of education. This was compared to 17.3 years for dentists, 17.4 years for lawyers and judges and 17.1 years for clergymen.

Based on 1960 census figures, which do not reflect the post-Medicaid surge in all medical costs, the net average lifetime earning for doctors was $717,000, compared to $589,000 for dentists, $621,000 for lawyers and $175,000 for clergymen.

The Census Bureau took these same figures and ranked 321 occupations according to their median annual incomes. Physicians placed first, followed by bankers, dentists, professors of medical sciences and lawyers. Clergymen were 245th on the list.

Another analysis of the same figures was made by a team of economists who tried to take the census figures and compute "real earnings," if the costs of education, including tuition and living expenses, were taken into account. By rank, and without giving figures, they concluded that on this basis dentists earned the most. Physicians were fifth and lawyers were 14th, after toolmakers and draftsmen.

The growing number of medical specialists is another acknowledged factor in the high incomes of doctors. Specialists charge an average of two to three times the fee of the general practitioner.

According to a Department of Commerce survey, 26 per cent of the nation's physicians were specialists in 1929. In 1959, 46 per cent were. An April, 1969, study by the American Academy of General Practice said that only 21 per cent of the nation's doctors were general practioners.

The 1970 continuing survey of Medical Economics showed that 11 per cent of the general practitioners, 13 per cent of the internists, 19 per cent of the obstetricians and 22 per cent of the general surgeons in private practice sampled earned $60,000 a year or more. This compared with 5 per cent of the pediatricians, the so-called workhorses of medicine.

In the end the important question is not how much a doctor charges or earns, in the view of medical economists like Anne R. Somers of Princeton, for the affluent consumer who equates high fees with high quality will almost always pay what he is charged without complaint.

The real focus of attention, according to Mrs. Somers, should be on how doctors' present economic status may become an obstacle to attempts to make good health care more widely available, especially to the poor.

SENATOR MILLER SPEAKS ON DRUG PROBLEMS

Mr. GRIFFIN. Mr. President, last Friday, September 24, Iowa's senior Senator, JACK MILLER, delivered a most timely and meaningful address at the banquet and graduation ceremonies of the training school sponsored by the Federal Bureau of Narcotics and Dangerous Drugs, in Des Moines, Iowa. It is significant, I believe, that the graduates came both from large cities and small rural communities from States comprising the Midwest.

I ask unanimous consent that Senator MILLER'S address be printed in the RECORD.

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

ADDRESS BY U.S. SENATOR JACK MILLER

It is a pleasure for me to be with you for this banquet as you wind up a two-week program, which I am sure has been a worthwhile experience for each of you.

I am particularly pleased to have this opportunity to express my admiration and support for the work you have done and will be doing in the problem area considered by many to be the most crucial facing our nation.

I fear no challenge when I say that the day is long past for the unhelpful hand-wringing, the expressions of hopelessness, and even the reaction of panic which have been associated with the mention of narcotics and dangerous drugs.

One only has to pick up a daily newspaper to know that the drug abuse problem has reached epic proportions, and that no community, however large or small, and no family, however rich or poor, is immune.

Law enforcement officers . . . parents . . . teachers . . . youth . . . the community as a whole must meet this challenge or we will find the drug culture becoming a way of life, feared but accepted, because our will to resist and our moral fibre will have decayed.

The problem is deeply traumatic because statistics indicate that, to a significant extent, drug abuse and addiction are especially prevalent among our youth—those who will have a great deal to say about our country's future.

We cannot afford, therefore, to underestimate the urgency of the current drug crisis; nor can we afford to temporize in responding to this crisis. Our response must be varied, because the problem has many facets. It must be both scientific and humane. And it must be absolute. There can be no compromise. Either we get the problem, or it will get us.

I recognize that medical scientists are not in full harmony over the means of treating the victims of drug abuse; and there is too much controversy over the social and law enforcement aspects of the problem. What is needed more are results. The old story of the patient dying while the experts argued over how and when to operate is relevant. Those who would hope for simplistic solutions or easy solutions will be disappointed, for there are and will be none. If they wait, they will only lay a foundation for more injuries, more deaths, and more chipping away at our society's foundations.

Alvin Toffler, writing in his best-selling book, *Future Shock,* laid out a shocking picture of the future:

"In the three short decades between now and the twenty-first century," he wrote, "millions of ordinary, psychologically normal people will face an abrupt collision with the future. Citizens of the world's richest and most technologically advanced nations will find it increasingly painful to keep up with the incessant demand for change that characterizes our time. For them, the future will have arrived too soon."

I would suggest that he was not being as prophetic as he was facing the realities of today and applying them to the future in the expectation that we will fail to head off the major problems of today, including that of drug abuse.

I hope he is wrong. I am optimistic enough to believe he is wrong. There are plenty of signs to give us confidence—groups like this; good, dedicated people working on the problem and wonderful cooperation from the press media; our interest in ecology and the preservation of our environment; the efforts being mounted against our pollution problems; the enactment of legislation and programs that are designed to turn our youth away from the evils of drugs and into constructive channels, which will help them to play a meaningful role in changes—good changes—in our society.

I see hopeful signs in the back-to-religion movement among many of those who previously had been wasting their energies and intellects on drug experimentation. I see hopeful signs in the new music which is becoming fashionable—where the lyrics are more significant than the beat, lyrics containing the message of turning off the drug habit and returning to God, and getting across the idea that love of one's fellow man, soul and religion are more important than the illusory world of drugs. If you have listened to such popular music as "Oh Happy Day," "Put Your Hand in the Hand of the Man," "Amazing Grace," "My Sweet Lord," you'll know what I am talking about. Johnny Cash's popularity underscores what I mean.

Perhaps I am indulging in wishful thinking, but I believe a lot of young people are looking at the drug use syndrome as stupid; and they aren't turned on by those who indulge in the syndrome. Although they may have a tolerant or sympathetic attitude.

All of these signs are favorable. But they are only signs. We have a dreadfully long way to go. Those who want to see drug abuse flourish so they can make a fast buck aren't going to throw in the towel without a fight.

We must reexamine the concept of family life, to see that its strengths of an earlier age are maintained and adapted to meet the stresses and strains of today's social problems.

We must reexamine the educational system, to see that adequate attention is given to the personal development of your youth, many of whom have the feeling that they are only regarded as computer numbers by the system.

We must work with our youth, not tune them out; we must listen to them, for they do have something to say. And we must do more to bring them into the front lines of this fight against drugs, especially those who have won the battle against addiction. This will be more effective than any approach relying only on older people, no matter how experienced and dedicated.

We—the so-called "establishment," if you will—must become more understanding of the problems of youth and the reasons why they are turning to drugs. And I believe that their involvement in meaningful social problems or other areas of interest where they can see that they are making a contribution to a better community, a better country, a better world—this will help fill a void that drugs might be used to try to fill.

At the same time, we must do more to replace a fear of being caught with an appreciation of the dangers of the drugs themselves. The latter is a far more effective deterrent.

While the State of Iowa has taken several progressive steps in combatting the drug problem, one is especially noteworthy because it promises to do more to close the so-called generation gap than any other step that has been taken. I am talking about legislation which establishes that a youth or student counselor is a "party to privileged communication." Only three other states—Michigan, Nebraska and Indiana—have a similar law.

This means that drug-troubled students can turn to their counselor for help and guidance to work on their problem without fear of being turned in to the authorities.

However, this is only one step in effectively reaching the potential or actual user of drugs.

Iowa is to be commended for other actions it has been taking: the development, within our counties, towns and cities of *"rap" centers* where the young people can meet and discuss problems with their own peer group as well as with professional people; the creation of *crisis centers* designed for emergency action; setting up of "hot lines" that serve both as listening posts and as points of initial contact for those seeking assistance; and the pushing of educational programs on drug abuse prevention in schools and homes. In addition, one should call attention to the actions being taken by numerous private organizations, such as the distribution of drug information and presentations to schools and meetings of parents.

Our state is also to be commended for the enactment of a uniform controlled substances act, making it more difficult for a pusher while at the same time providing for rehabilitation of the user . . . for its establishment of metropolitan narcotic enforcement units in several areas of the state . . . for its establishment of a state narcotics enforcement bureau . . . for its creation of treatment centers . . . and for its regional information centers; also for its enlistment of both public and private hospitals and physicians in performing in- and out-patient drug abuse treatment.

But there is still more to be done.

There is need for updating education and procedures within our school systems, and I am talking now not only about Iowa but all the states. For example, are those who lecture on drugs in our schools merely going through the formalities by telling the students to stay away from drugs, without pointing out the effects of drugs on individuals and society? Do drug courses take on the form of an occasional school-wide assembly, accompanied by a scare film on drug abuse?

Lecturing on the evils of drugs is not enough. To develop an effective program, we must be aware of why the person gets hooked in the first place. A reformed addict can be extremely effective. The young people know he knows.

We need more research to get the answers to some interesting but hard-to-answer questions:

For example, is there a relationship between parental drinking, smoking or pill-taking in the home and drug use among young people?

Is there a direct relationship between taking of drugs and the fact that friends take them—a sort of peer pressure? Some think there is, but why don't all friends submit to peer pressure?

Is there a relationship between use of drugs and boredom, a failure to be able to channel energies into constructive channels? And if there is, how is that boredom to be overcome?

Finally, we should realize that a lot of young people probably know, or at least think they know, more than we do about drugs. They don't need information they already have. But they probably need communication that has a personal touch, with relevance to their life style and a bearing on their future. Such communication is a lot more challenging than giving a set lecture!

How many of us have been guilty of not doing our "kid homework," as Ron Sampson so aptly put it in a column on drug use in the September 9th issue of the *Ankeny Press-Citizen?*

His concluding thought also will be mine, for it sizes up the situation very well: He wrote—

"So give them a chance . . . don't make them turn on to drugs . . . let them turn on to you."

THE LOSS OF SENATOR PROUTY

Mr. BROCK. Mr. President, the death of Senator Winston L. Prouty, of Vermont, was a great loss to the America he loved so much. It will be difficult for all of us to visualize the U.S. Senate without his presence, for we loved and admired his strength, stability, grace, and skill.

As a public servant, he has served his party and his Nation well. He has a multitude of friends in the Senate, serving on both sides of the aisle, who deeply respected his infinite store of knowledge of the legislative process he loved so well.

The Senate, the administration, the Republican Party, the State of Vermont—but, most important, the Nation and its people—will miss his leadership

and his zest for life. His record and his indomitable spirit are monuments to the qualities of leadership and character which he embodied and to which we all aspire. His passing from the political scene leaves a void of great dimension.

His integrity, his faith in America and God, his legislative leadership, his humanity and compassion will never be forgotten.

Mrs. Brock joins me in extending our deepest sympathy to Mrs. Prouty and his family in their time of sorrow.

TIME FOR ACTION

Mr. DOLE. Mr. President, Secretary of Agriculture Clifford M. Hardin at noon today issued the following statement on the effect on the farm prices of dock work stoppages:

U.S. farmers are losing business every day and are continuing to suffer a tragic loss in income from prices that are depressed because their products can't move to market.

Right now wheat that ordinarily would be moving to Japan is piling up in elevators and spoiling on the ground because of the westcoast dock strike. Perishable fresh fruit and vegetables can't wait for the strike to end, and this business will be completely lost.

As these products pile up it adds to the burden of supplies that seek an outlet here at home—and this depresses U.S. farm prices. Further, the transportation tie-up forces foreign buyers to look elsewhere for their supplies—which causes an immediate loss in our sales and sets up trade relationships between foreign buyers and new sources of supply that will be hard to break.

Right now there is the threat of a strike in gulf ports. That would be even more of a catastrophe for the Nation's farmers. Even now the mere threat of a strike is hurting. Elevators are reluctant to buy the new crop because they don't know when they can ship the commodities—and they know that if the ports are tied up, prices on the supplies they hold will drop lower.

This is particularly hard on farmer's prices and the Nation's farmer's right at the time when they have record harvests to move to market.

It would be a disaster to the Nation's farmers if gulf coast ports were to be tied up for any length of time. A previous gulf coast strike in 1969 turned around an upward trend in farm exports: Export totals dropped $570 million under the previous year. Soybeans, feed grains, wheat, cotton, meat and meat products all lost substantial sales.

President Nixon said on Saturday, "We cannot tolerate a continuation of this pattern of delay and slow progress toward an ultimate settlement of the westcoast longshoremen's strike. The time is overdue for the parties involved to live up to their responsibilities to the American people."

I join the President in asking that the patricipants in this strike on the westcoast, and the one threatened on gulf ports listen to the appeals of their fellow Americans to move food and farm products at this critical time. At this moment we are engaged in a national effort to control inflation, restore our competitiveness in international trade, and improve our balance of payments. It is time for all of us to look up to this challenge and respond to it.

BROOKSIDE GARDENS, MONTGOMERY COUNTY, MD.

Mr. MATHIAS. Mr. President, Brookside Gardens was established by the Maryland Park and Planning Commission in nearby Montgomery County, Md., and dedicated just 2 years ago, but already this botanical garden attracts thousands of visitors. In dedicating the garden, Representative GILBERT GUDE, called the facility a "plant dictionary" and, indeed, it contains an educational selection of plants of economic importance, such as banana and chocolate plants, of ornamental grass specimens from around the world, and of many trees and shrubs.

I ask unanimous consent that the status report on the garden and on plans for additions, such as a fragrance garden for the blind and a 12-acre area for an extensive collection of plant materials from the nursery of the late Adolph Gude, a gift of the Gude family, be printed in the RECORD.

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

BROOKSIDE GARDENS, A COMMUNITY BOTANICAL GARDEN

The great botanical gardens of the world reached their peak during the Victorian era. Throughout the first half of the twentieth century many were in a period of stagnation and decline. In recent years, with a growing public awareness and concern for the living things which surround us, a renaissance has occurred which not only has given new life and direction to existing arboreta and botanical gardens but has given rise to the community botanical garden.

Such a community botanical garden was opened to the public two years ago in Montgomery County, Maryland. Located on a 35 acre site within Wheaton Regional Park, Brookside Gardens serves a dual function in the community by providing the public aesthetic enjoyment and educational facilities.

The Maryland-National Capital Park and Planning Commission began preliminary plans for Brookside Gardens more than ten years ago, with the actual construction phase of the project starting in 1967. The project was given added impetus through a federal grant which was administered through the Maryland Department of Forests and Parks.

From the beginning, Brookside Gardens has received strong community support from garden clubs, schools, civic organizations and the public at large. Brookside has proved to be one of the most enthusiastically received projects ever undertaken by the Maryland-National Capital Park and Planning Commission.

To the thousands of visitors who come to Brookside each year, one of the outstanding features is the tropical conservatory-greenhouse with its landscaped garden of tropical flowering trees and shrubs complete with a stream and waterfall. Here the visitor will find a wealth of color each day of the year. School groups are especially interested in the tropical plants of economic importance such as bananas, coffee, chocolate, black pepper and vanilla. Home owners and apartment dwellers can see plants which can be grown in their homes. Four times a year, special shows are held in the conservatory. These include a Christmas display with poinsettias and cyclamen, an Easter display of lilies hydrangeas, and primroses, a spring display of cineraria, calceolaria, fuchsias and freesias, and in late fall the conservatory is alive with color provided by thousands of chrysanthemum flowers.

The public is welcome to enter the adjacent propagation greenhouse, which is a working greenhouse where the plants are actually started. Here they can see the progression of a plant from its beginnings as a seed, cutting or bulb to maturity. On view, also, are examples of the latest techniques and equipment used in plant propagation, these have application for the home gardener too. These greenhouses provide the visitor a unique visual and educational experience.

Surrounding the greenhouse complex are a number of garden areas, as well as collections of trees and shrubs. Among them is a formal garden designed in the old European style. Here the visitor will find pools, fountains, wide paved walkways, formal hedges and a gazebo. The garden is planted with a large variety of annuals and perennials which give a continuous display of color from early April through October.

A demonstration garden has been constructed in which annual flowers are planted side by side in blocks for easy identification and comparison. The home gardener can see those annuals which do best in the Washington metropolitan area as well as some plants which are being tested and evaluated for adaptability to this area. Plants of recent introduction are also on display. Throughout all of the gardens and greenhouses, the plants are identified by labels which give their scientific and common names, family and habitat.

An Azalea and Rhododendron garden covering more than one and one-half acres is located in a natural woodland setting under a canopy of pine and dogwood trees. When this garden is fully developed, it will include more than 500 varieties of azaelas and rhododendrons.

A garden that always evokes comment is the ornamental grass garden planted with specimens from around the world. The various sizes, unique textures, and subdued colors of this garden contrast with the bolder colors in the formal gardens above.

Collections of trees and shrubs have been planted including hollies, dogwoods, witchhazels, crabapples, oriental cherries, and maples, with others to follow in the future. Such planting serve to acquaint the homeowner with the many plant materials that are available to him as well as research specimens to determine which plants will do best in this area.

Four new gardens are scheduled this year, a fragrance garden for the blind, a rose garden, a wildflower garden, and the Adolph Gude collection. Most gratifying is the enthusiastic support of citizens and community groups for these new projects. The garden for the blind will be built around a system of fountains designed to splash in rhythmical patterns and will make use of plants with scented flowers and foliage. The plants will be described by the use of braille labels, large print signs and tape recorders. Plants for this garden will be donated by a local nurseryman, while the fountains and tape recorders are the projects of two local garden clubs.

The rose garden will serve to display those varieties best suited to the Washington area, and will include current introductions as well as some of the old fashioned roses. One of the country's outstanding hybridizers and a resident of Montgomery County has offered to supply without charge the plants for this garden.

A low lying but ecologically interesting portion of Brookside is being developed as a natural area. The indigenous plants will be supplemented with wildflowers and ferns suitable to such an environment. The land for this garden is mostly level with a tree canopy and includes a stream that borders with the nature center next door. Another of our local garden clubs is helping with this project, and they were recently recognized with a regional award from the Sears Roebuck Company for their work on this project.

A fourth new addition to Brookside will be located on twelve acres set aside to receive an extensive collection of specimen

plant materials from the nursery of the late Adolph Gude, a gift of Mr. Gude's family. Adolph Gude was one of the pioneer nurserymen in Montgomery County, and the garden bearing his name will be one more indication of the interest of the citizens of this county in gardening and beautification.

Brookside has not neglected the direct educational approach to its public. Scheduled tours and demonstrations are given to interested persons, while staff members are available to answer the hundreds of questions received each year. A horicultural reference library is open to the general public and contains a broad spectrum of books and periodicals on gardening and horticulture. Space for classrooms and directed study in gardening and horticulture in a much-needed propagation complex is being planned for the future. Time and money will be required for these and other important additions, but growing needs and public interest augur well for the continued development oof this much-needed facility in suburban Maryland.

REPORT ON SECURITIES STUDY HEARINGS

Mr. WILLIAMS, Mr. President, on September 21, the Subcommittee on Securities held its initial hearing in its study of our Nation's securities markets. In my opinion, this hearing was extremely productive in informing us as to the current attitudes of the SEC and other agencies on several important questions relating to commission rates and institutional membership.

Surcharge on small transactions: While the SEC eliminated the surcharge on small transactions when it approved a new commission rate structure last week, I was disappointed to learn that the new rates on small transactions will approximate, and in many cases exceed, the present rate including the surcharge. In fact, there are a number of aspects of the Commission's release announcing approval of the New York Stock Exchange's new rates which concern me, and on which I plan to request further explanation.

High charges on small transactions are in my opinion a significant factor in discouraging trading in securities by small investors. A dramatic improvement in the efficiency of the industry is of the utmost importance if small transactions are to be handled profitably at reasonable rates. This in turn requires modernization of the industry's operations, a problem to which we will turn our attention in this week's hearings.

Fixed against competitive rates: The testimony submitted to us by the New York Stock Exchange indicates that 3 months' experience with competitive rates above the $500,000 level has not produced any serious dislocations in the operation of the NYSE market or the allocation of business among member firms. The NYSE and the SEC, however, both indicated a reluctance to take the next step in reducing the ceilings on fixed rates until they have figures showing the results of 6 months experience with competitive rates. I was pleased to have Chairman Casey's commitment that he expected to complete his study on the effect of competitive rates above the $500,000 level by December 31, and that a decision will be made early next year on the extension of competition to a broader range of transactions. The testimony we received from two major institutional investors strongly reinforced my previous conclusion that this step will be the most effective means of reducing the pressure for institutional membership. We shall watch the SEC's actions closely, since any substantial delay may raise the question of the need for direct congressional action to resolve the issue.

In subsequent testimony, Donald T. Regan, the chairman of Merrill Lynch, suggested June 30, 1973, as a target date for elimination of fixed rates on all transactions. He suggested that steps be taken immediately to bring the benefits of competition not only to institutions but also to small investors who do not wish to avail themselves of the full range of brokerage services which are covered by the present rates. He indicated that, if rate-fixing were eliminated today, Merrill Lynch would be prepared to execute transactions for public customers, without ancillary services, for substantially less than the current rate.

I urge Mr. Regan, together with any other industry leaders who may be concerned with offering this kind of economical service for small investors, to formulate promptly a proposal for an experimental execution service to investors, eliminating ancillary services, on which there would be no fixed minimum rate. This proposal should contain appropriate safeguards so that it would not be misrepresented to unsophisticated investors or used to entice them into unwarranted trading or speculative activities. I would also hope the SEC would give prompt and sympathetic consideration to any such proposal.

Antitrust questions: Chairman CASEY noted in his testimony the Commission's obligation to take antitrust laws and principles into account when passing on stock exchange rules which have anticompetitive effects. However, he suggested that, once the Commission had found that regulatory needs outweighed the anticompetitive effects of a particular rule, a court which was asked to review the validity of the rule under the antitrust laws should not make its own determination of the issue, but should refer the matter back to the Commission for reconsideration. I am not aware of any support for this position in the reported cases, and I am extremely concerned about any suggestion that would deprive the courts of their traditional power to adjudicate antitrust questions. Without the spur provided by diligent application and enforcement of the antitrust laws, the incentives to modernization and efficiency through the operation of competitive forces in the securities industry would be greatly reduced. This is an incentive which the industry can ill afford to lose at the present time.

Further hearings on operational problems: On September 30 and October 1, the Subcommittee on Securities will receive testimony dealing with proposals to eliminate or immobilize stock certificates and to improve other aspects of the industry's operational capacities.

On September 30, we expect to hear from three authorities on the industry's paperwork problems:

Mr. Russell Morrison, president, Standard & Poor's Corp.;

Mr. Junius W. Peake, partner, Shields & Co.;

Mr. Eli Weinberg, partner, Lybrand, Ross Bros. & Montgomery.

On October 1, we expect to hear from representatives of organizations which have been engaged in various aspects of the efforts to modernize the industry's operations:

Mr. John Meyer, chairman, Banking and Securities Industries Committee—BASIC—accompanied by Mr. Herman W. Bevis, executive director, BASIC;

Mr. Gordon S. Macklin, president, National Association of Securities Dealers, Inc.—NASD—accompanied by Mr. David H. Morgan, president, National Clearing Corp.;

Mr. Phillips M. Montross, president, Midwest Stock Exchange Clearing Corp., accompanied by Mr. George Becker, chairman of the executive committee, Midwest Stock Exchange.

Mr. John H. Perkins, executive vice president, Continental Illinois Bank & Trust Co. of Chicago.

SCHOOL LUNCH REGULATIONS

Mr. HUMPHREY. Mr. President, I am shocked to learn that President Nixon and his Department of Agriculture have ignored the needs of hungry schoolchildren around the country in refusing to change the new school lunch regulations published on August 13. In standing by these regulations, the administration has ignored the mandate of the law.

They have ignored the advice of school lunch officials around the country.

They have ignored a letter signed by myself and 43 other Senators, as well as several individual letters from Congressmen and Senators.

They have ignored the pleas of the congressional committee chairmen who are responsible for school lunch legislation.

They have reneged on a promise made by President Nixon in 1969 when he pledged to put an end to hunger among American schoolchildren.

There can be no doubt that the regulations of the U.S. Department of Agriculture will destroy the school lunch programs of many needy school districts. I have been flooded with mail from around the country which indicates that local school officials will be unable to carry on their program of feeding needy children if the regulations are not changed.

It is difficult to understand how the President expects his promise of feeding every needy child be fulfilled when he refuses to pay more than 35 cents per meal. In many cities around the Nation it costs over 60 cents to prepare and serve a school lunch.

The regulations which set the reimbursement rate at 35 cents were published on August 13, only a few days before many schools opened their doors.

These schools had no source of fund-

ing to turn to. It is impossible to raise local tax revenues on such a short notice. The school districts are precluded from raising the prices of lunches served to paying children by the President's wage-price freeze.

Therefore, many schools are faced with only one alternative—to cut back or eliminate their program of providing free meals to needy children.

School districts that desperately need a fair reimbursement for free and reduced price meals are thrown into a fiscal crisis by the President's refusal to provide minimum revenue to reimburse the cost of school lunches for the needy.

The Committee on Agriculture and Forestry held hearings on the new regulations last week. We heard from a number of witnesses who would be adversely affected by these regulations.

One witness, a superintendent of a poor school district in Texas, indicated that he would have to cut back on his academic programs in order to continue needs of hungry school children.

A representative of the Buffalo school system indicated that at the proposed rate of reimbursement, the city of Buffalo would have to suspend its feeding program some time during the coming winter.

I sat and listened to those witnesses talk about the insurmountable problems that the new regulations would create for the people who are trying to feed hungry children. The more I listened, the angrier I got.

I do not feel that the American people or their representatives in Congress will tolerate such a callous disregard of the needs of hungry schoolchildren.

As one Member of the Senate, I intend to do everything within my power to see that the President is forced to change his mind. I cannot tolerate a set of national priorities which allows billions of dollars to waste in military programs, a system which permits thousands of wealthy people to pay little or no income tax, and at the same time denies hungry schoolchildren even one good meal every day.

It is time that the President made up his mind whether his commitment to end hunger among American schoolchildren means anything.

It is time for Members of Congress to decide whether our commitment to feed every needy child, spelled out in Public Law 91-248, can be circumvented by the budget cutters in the White House.

If we do not mean our promise to the American people, we should wipe it from the statute books.

If the President does not mean to keep his promise to the American people, he should issue a public retraction. It is small wonder that many Americans have little faith in their public officials.

But I have faith that Members of Congress will not permit such a breach of trust. I believe that Congress will require that the law be complied with. As one Member of Congress, I shall do my part.

Today the Committee on Agriculture and Forestry, by a vote of 8 to 5, approved the resolution of our distinguished chairman, Senator TALMADGE and his colleague, Senator GAMBRELL, to direct the Secretary of Agriculture to make available sufficient funds to carry out the purpose of Public Law 91-248.

The resolution also provides that the maximum reimbursement rate under section 11(e) of the National School Lunch Act shall not be less than 40 cents.

I ask unanimous consent that the text of the resolution and the amendment thereto, including the explanation of the amendment, be printed in the RECORD.

There being no objection, the items were ordered to be printed in the RECORD, as follows:

To assure that every needy schoolchild will receive a free or reduced price lunch as required by section 9 of the National School Lunch Act.

Whereas it appears that under the proposed apportionment of funds available for special assistance under section 11 of the National School Lunch Act for the fiscal year ending June 30, 1972 (including funds appropriated by section 32 of the Act of August 24, 1935, and made available for that purpose), only six States will receive more than 30 cents in such assistance per free or reduced price lunch; and

Whereas it appears that this amount per lunch is not adequate to enable States and schools to continue to participate in the school lunch program and to achieve the objectives of the National School Lunch Act, particularly that of providing a free or reduced price lunch to every needy child: Therefore be it

Resolved by the Senate and House of Representatives of the United States of America in Congress assembled, That, notwithstanding any other provision of law, the Secretary of Agriculture shall until such time as a supplemental appropriation may provide additional funds for such purpose use so much of the funds appropriated by section 32 of the Acts of August 24, 1935 (7 U.S.C. 612c), as may be necessary, in addition to the funds now available therefor, to carry out the purposes of section 11 of the National School Lunch Act and provide a rate of reimbursement which will assure every needy child of free or reduced price lunches during the fiscal year ending June 30, 1972. In determining the amount of funds needed and the requirements of the various States therefor, the Secretary shall consult with the National Advisory Council on Child Nutrition and interested parties. Funds expended under the foregoing provisions of this resolution shall be reimbursed out of any supplemental appropriation enacted for the purpose of carrying out section 11 of the National School Lunch Act, and such reimbursements shall be deposited into the fund established pursuant to section 32 of the Act of August 24, 1935, to be available for the purposes of said section 32.

AMENDMENT TO S.J. RES. 157

At the end of the resolution add the following:

SEC. 2. Funds made available by this joint resolution shall be apportioned to the States in such manner as will best enable schools to meet their obligations with respect to the service of free and reduced price lunches, and such funds shall be apportioned and paid as expeditiously as may be practicable.

SEC. 3. The Secretary of Agriculture shall immediately upon enactment of this resolution determine and report to Congress the needs for additional funds to carry out the school breakfast and nonfood assistance programs authorized by sections 4 and 5 of the Child Nutrition Act of 1966 during the fiscal year ending June 30, 1972, at levels which will permit expansion of the school breakfast and school lunch programs to all schools desiring such programs as rapidly as practicable.

SEC. 4. Section 11(e) of the National School Lunch Act is amended by adding at the end thereof the following: "Such maximum per meal amount shall in no event be less than 40 cents; and the Secretary shall establish a higher maximum per meal amount for especially needy schools based on such schools' needs for assistance in providing free and reduced price lunches for all needy children.

EXPLANATION

This amendment would—

(1) Make it clear that the funds provided by the resolution would be apportioned in a manner that will best enable schools to provide lunches to needy children, rather than in accordance with the section 11 formula,

(2) require these funds to be apportioned and paid as expeditiously as practicable,

(3) require the Secretary to determine and report to Congress the needs for additional funds for fiscal 1972 for the school breakfast and nonfood assistance programs, and

(4) provide that the maximum reimbursement rate under section 11(e) of the National School Lunch Act shall not be less than 40 cents.

NATIONAL REFERENDUM ON BUSING

Mr. BROCK. Mr. President, the well-known commentator Jeffrey St. John recently posed a very pertinent question over the CBS network program "Spectrum" when he asked, "Should the United States have a national referendum on school busing?"

If we could, indeed, go to the polls and vote on this emotional issue today, all indications are that the proponents of the neighborhood school would win hands down by at least 75 percent to 25 percent. I ask unanimous consent that Mr. St. John's remarks be printed in the RECORD.

There being no objection, the remarks were ordered to be printed in the RECORD, as follows:

CBS SPECTRUM

(By Jeffrey St. John)

This is Spectrum on the CBS Radio Network. I'm Jeffrey St. John with my personal viewpoint: Should the United States have a national referendum on school busing? More, after this message.

The late Oscar Wilde observed, "Democracy means simply the bludgeoning of the people by the people for the people."

The forced busing of school children during the current school year fits perfectly Oscar Wilde's words. The proponents of school busing say they are forcing their nefarious doctrine on the nation in the name of equality and democracy. Well, democracy used to mean the will of the majority. But the school busing advocates are, in reality, a totalitarian minded minority—forcing their will on a majority of American parents who reject busing.

Significantly, proponents of school busing fear to put this explosive issue to a national referendum. Which is why they have circumvented the will of the majority by using the courts to enforce busing. The recent violence over busing is symptomatic of the frustration of American parents who oppose busing. Their frustration, if not relieved, will further inflame passions and eventually escalate into more violent clashes.

Recognizing this potential for violence, Senator William Brock of Tennessee intro-

duced what may prove to be a safety valve for these frustrated parents. He has introduced, with the backing of 12 other U.S. Senators, a constitutional amendment that could serve as a national referendum on the school busing issue. The amendment reads simply, "No public school student shall, because of his race, creed, or color, be assigned to or required to attend a particular school." Naturally, the elected representatives of both the Senate and House would need to approve the amendment, as would the States. Such a process seems the most equitable and democratic way to resolve the explosive issue of school busing. The pro-busing advocates, however, have been silent about Senator Brock's proposal. When he introduced the proposed constitutional amendment the Tennessee Republican pointed out that the Supreme Court in 1954 prohibited pupil assignment to schools on the basis of race. Now, the proponents of school busing have chosen to ignore the 1954 ruling.

The busing issue has ignited in a majority of Americans, black, white, and even Chinese, a deep and angry resentment. If we wish to resolve this issue peacefully, let us put it to the acid test of a national referendum via Senator Brock's constitutional amendment.

THE U.S. TRADE PROBLEM

Mr. HANSEN. Mr. President, the recent 90-day wage and price freeze, the 10-percent surtax on imports, and the other proposals President Nixon made last month have been enthusiastically greeted by a great majority of Americans.

Worldwide, the acceptance of the surtax on imports and the floating of the dollar has been less than joyful.

The United States has suffered its fifth consecutive monthly deficit in international trade in August adding up to a cumulative deficit for the year of $936 million compared to a surplus of $2.2 billion for the same period of 1970.

The trade deficit was, of course, a major reason for the President's new economic policies. One of those who has for years warned of the impending crisis in U.S. international trade—and it is no longer impending, it is here—is the president of the Nationwide Committee on Import-Export Policy, Mr. O. R. Strackbein.

A recent issue of the Wall Street Journal, one of the Nation's greatest newspapers, contains an article written by Mr. Strackbein in support of a ceiling on imports.

On the same page of the Journal, an editorial entitled "Our Over-the-Hill Economy" summarized the opposing views of the Journal to what they term the "protectionism of quotas."

Mr. President, in view of the highly controversial aspects of this question of U.S. trade policy and events that have followed the President's action of August 15, including the current meeting here of International Monetary Fund and the World Bank, I ask unanimous consent that Mr. Strackbein's article and the Journal editorial be printed in the RECORD.

There being no objection, the items were ordered to be printed in the RECORD, as follows:

[From the Wall Street Journal, Sept. 24, 1971]

THE CASE FOR A "CEILING" ON IMPORTS

(By O. R. Strackbein)

The need for a new trade policy has been borne in upon us in recent months by the successive monthly trade deficits we have suffered since last spring.

The harsh reality of our weak competitive position in the world, including our own market, was recognized in August when the President proclaimed a supplemental duty of 10% on roughly half of our total imports, and cut the dollar loose from gold internationally.

In our trade, neither the action taken, nor anything so far contemplated by the administration in the form of trade legislation, has thus far reflected recognition of a far more basic affliction that plagues our economy. This is the changed competitive position of American industry in relation to imports, and the far-reaching implications of this change. To understand this change will require a review of our economic history of the past century.

TWO IMPORTANT CONDITIONS

Mass production had its origin in this country. Its economic potential depended on two important conditions: (1) fair competition as an antidote to monopoly and as assurance of passing reduced costs attributable to technology to the consumers, and (2) increasing mass purchasing power.

Our inventiveness and energy assured technological progress if incentive beckoned. The efficacy of fair competition was clearly perceived and resulted in the Sherman Anti-Trust Act (1890) and later in the Clayton and Federal Trade Commission Acts and yet later in the Robinson-Patman Act.

The automobile industry, especially as represented by Henry Ford, provides the classical example in the development in this country of the uniquely productive system that brought us to world industrial leadership. Ford's insight led him to tie the fortunes of mass-production to the mass-market or consumer purchasing power. He introduced the $5-a-day wage as an earnest fee of his faith.

A third element for the success of the vision was selection of products that were likely to enjoy an elastic demand, i.e., products so far acceptable to potential consumers that these would buy more and more of them as the price came down. Essential goods do not answer to this description. The demand for them is inelastic. Food is an example. The number of stomachs is limited by the population. Nonessential goods that cater to human needs and desires (especially to ease, comfort, convenience, beauty and social prestige) once discovered or invented, are prime candidates for mass consumption if the price is sufficiently reduced.

After the unbelievable success of the automobile, a vast array of other products followed suit. Household appliances of all kinds, washers, driers, refrigerators, the telephone, radio, television; luxury wearing apparel, sports and recreational items, proliferated over the land to the point of saturation. The great moving power in this phenomenal process was the rich mass market that could be reached if the price was progressively brought down. We needed no imports to develop our mass market for goods of all varieties. Our enterprising manufacturers had only to behold what the mass market had meant to one product after another and then go and do likewise.

Indeed, we depended on new products and their conquest of the mass market to absorb the annual crop of new workers. If a new product initially cost $5,000 few customers would be found and little new employment would be generated. If the price was cut in half, or to a quarter, many more units could be sold. Sales were better yet if the price could be brought down to $500, and still better if it dropped to $100. A jackpot awaited the successful industrial genius.

Employe compensation, as recognized by Henry Ford, provides the great bulk of purchasing power if it keeps pace with rising productivity. Thus instead of looking upon wages as a necessary evil, to be kept as low as possible, as the early British economists saw it (Ricardo, Mill and others), American economists began to see them as the greatest of market constituents. Our laws began to reflect this recognition—so much so, in fact, that, with the addition of social welfare and other burdens (such as national defense) industrial costs of production became highly inflexible in this country except on the upward slope. Almost no competitive maneuverability remained. Great pressure developed for automation and worker displacement.

This process, indeed, was relied upon to strike additional layers of income on the way to the mass market. Such is the nature of a truly elastic demand that consumption will grow distinctly faster than job displacement if prices are brought down within reach of the income levels of potential customers.

MILLIONS OF JOBS GENERATED

Without being explicitly conscious of it our enterprising product developers and merchandisers generated millions upon millions of jobs in this country by finding likely products and awakening the latent demand for them, reducing costs by mass production and then reaping the monetary reward.

Thus did our unique system come to lead the world. After World War II the other leading industrial nations, having seen the magic of our technology and business methods, embraced the system and adopted it with generous help from us.

Before long we were faced with an unpalatable fact: The other countries embraced our mass production but were reluctant to put into effect Ford's vision, namely rising wages as an absorbent of the volume of goods produced. While foreign wages did rise, they did not close the gap between them and us. Thus with lower wages and soaring productivity, foreign producers came to enjoy a widening gap between their unit costs and ours. Because their home purchasing power was inadequate they looked abroad for a market. We offered the most attractive of all.

The response of our industries was natral. They began heavy direct foreign investment—up to some $75 billion by now. Thus they enjoy the low foreign wage levels and rapidly rising productivity. Beyond that, many industries licensed use of their patents by foreign producers.

As a result any prospective new industry in this country has in the past few years come to stand before a wholly different prospect from the past. No longer does a mass market beckon—not because the potential is not there but because the new industry can no longer call it its own. Outsiders can beat it in any race to the mass consumer market.

What then of the expansion and the new jobs that previously could be anticipated with confidence? How readily will our capital venture into so uncertain a future?

The accustomed climate of 1910–1955 is gone. It will not return of its own account.

INFLEXIBLE BURDENS

Trussed in the inflexible burdens imposed by legislation and other factors in this country, thus making labor-displacement as a means of becoming or remaining competitive the only alternative, willing capital sees the foreign scene as a beckoning alternative. The mass market (consumers) characteristically smiles on merchandisers who offer the more

attractive bargains. These are less and less of the native variety and more and more the foreign. Our mass market is diverted to serve as an outlet, not for innovaters and entrepreneurs at home, but the foreign based.

Our economy is being outflanked, upset and consumed by the very forces to which it gave birth and by ironic generosity handed over to other countries. We are driven to ever greater dependence on service activities rather than production even though we still have the most productive machine in the world.

Is there an alternative? If we can restore the former climate we can hope to reopen the doors to expanding employment. The restoration can be assured if we set a ceiling on the share of our market imports may supply and thus prevent their heading us off at the pass that leads to the mass market. This share might differ from product to product and provide reasonable flexibility.

In such a restored climate our industry could resume the course of cost and price reductions with both new and old products that enjoy an elastic demand, and thus restore to our system its employment-generating motivation.

Failure to understand the dilemma posed by the silent reversal of the international competitive tide which in time will leave our economy beached, will bedevil and even embitter our international relations, while an understanding of it will open the way to fruitful adjustment.

OUR OVER-THE-HILL ECONOMY

In adjoining columns O. R. Strackbein paints a dreary picture of the U.S. economy, a view that may seem to be confirmed by recent events. Business has been sputtering along well below capacity, unemployment has been discouragingly high, and the U.S. has been having growing troubles with foreign competition.

Mr. Strackbein, an ardent spokesman for the new protectionism, feels that this country has simply encouraged and permitted too much of that foreign competition. In the process, he says, American industry has lost a major asset: domination of a huge domestic market.

It's certainly true that the domestic mass market has had much to do with the rapid growth of American industry. (In passing, it should be noted that free trade within the United States has made possible both the mass market and the industrial growth.)

We would concede, too, that other nations have made vast strides in technology, frequently with U.S. help. As President Nixon has been stressing lately, moreover, other countries seek unfair advantage over America by clinging to artificial exchange rates that favor their exports and discourage imports from the U.S.

When all that has been said, though, we still think Mr. Strackbein's solution smacks of defeatism. What he is saying, essentially, is that the U.S. should rope off much of its domestic market solely for domestic producers since, in his view, American companies will never again be able to compete on equal terms with foreign firms. Implicit in this plan, of course, is a renunciation of all foreign markets in favor of foreign companies.

This sounds quite a lot like the stagnation arguments of the 1930s: there's not much hope for much more expansion, so we had better content ourselves with dividing what we have.

The argument was wrong in the 1930s, and it's wrong now. Many of the U.S. companies that have been going abroad have gone not so much in search of cheap labor as in pursuit of what they see as a greatly expanding international market. Gradually, often painfully, the economic nationalism that has served the world so badly for several centuries has been giving way to a new internationalism.

Common Market countries discovered that, once they lowered the trade barriers among themselves, they had a huge domestic mass market of their own. After they made the discovery and began to profit from it, they unfortunately became rather protective about it, taking a tack somewhat similar to the one Mr. Strackbein now urges for the U.S.

The U.S., for its own selfish interest if nothing else, needs to encourage the rest of the world to continue to find and benefit from the virtues of freedom. To do so it will have to show the rest of the world that the 10% import surcharge is only temporary, that this country does not intend to reverse the progress toward freer trade that has been made over the past four decades.

Looking toward the increased competition that would ensue, the U.S. does indeed have some problems extending beyond unrealistic exchange rates, problems that need correction. Careless financial policies have permitted inflation to boost prices of exports and make imports more attractive. Government policies overly friendly to unions have made it difficult, if not impossible, for American producers to keep labor costs under control.

A significant part of the problem, finally, is that great American industrial asset: the domestic mass market. Many American producers came to take that market almost for granted. As a result, they relaxed—in research and development, in salesmanship, in simple management techniques. And foreign companies began to clobber them.

Around the world there is an enormous mass market opening up, one that can aid and abet many thousands of producers, both in this country and abroad. If less-developed countries get easier access to the world market for their raw materials and other products, they will also become bigger customers in the market.

Given reasonable federal financial and labor policy, we're convinced that many American companies can compete quite successfully in a swiftly expanding world market. Unlike the protectionists, in other words, we still aren't persuaded that the American economy is irretrievably over the hill.

IMPORTATION OF CHROME ORE OR CHROMITE

Mr. McGEE. Mr. President, during last week's debate on section 503 of the Military Procurement Authorization Act, the distinguished senior Senator from Virginia (Mr. BYRD) submitted a telegram from a Mr. William Hart, who identified himself as a member of the executive board of the United Steelworkers of America. Mr. Hart expressed support for section 503, which, in effect, would permit the United States to unilaterally breach the United Nations embargo against Rhodesia for the purpose of importing chrome ore or chromite.

Although Senator BYRD's comments relative to Mr. Hart's telegram and the manner in which it appeared in the RECORD were not misleading, I do believe that many Senators who voted on my amendment to delete section 503 did so in belief that the United Steelworkers did indeed support section 503.

In a letter from I. W. Abel, president of the United Steelworkers, he emphasized that Mr. Hart's telegram neither was endorsed by the executive board of the steelworkers, nor did it reflect the position of the steelworkers. Mr. Abel went on to say that the United Steelworkers of America supported the intent of the embargo and its continuation.

I feel that Mr. Abel's letter to me clarifies the steelworkers' position on this matter for those Senators who may have believed otherwise. I ask unanimous consent that Mr. Abel's letter be printed in the RECORD.

In conjunction with the same matter, I have also a letter from Mr. David Abshire, Assistant Secretary of State. I ask unanimous consent that it also be printed in the RECORD.

There being no objection, the letters were ordered to be printed in the RECORD, as follows:

UNITED STEELWORKERS OF AMERICA,
Pittsburgh, Pa., September 29, 1971.

Hon. GALE W. MCGEE,
U.S. Senate,
Washington, D.C.

DEAR SENATOR MCGEE: Recently the Senate debated a provision of the Military Procurement Authorizations Act, 1972 (H.R. 8687), reported out by the Senate Armed Services Committee, which would permit the United States unilaterally to breach the United Nations' embargo against Rhodesia for the purpose of importing chrome ore or chromite. Because of the official social and racial injustices perpetrated by the Rhodesian government against its citizens, the UN applied the economic solution of an embargo until such time as that government through negotiations would correct such indignities. The impact of the embargo, as far as chromite is concerned, is that the American ferroalloy producers have increased their purchases of Russian chrome ore from a level of 33 per cent in 1966 to a level of 58 per cent in 1971.

During the floor debate on your amendment to delete this morally indefensible section and to maintain the embargo, Senator Harry Byrd (Va.) read a telegram from a Mr. William Hart, who specifically identified himself as a member of the executive board of the United Steelworkers of America, in support of the effort to destroy the effectiveness of the embargo. Let me assure you that his telegram neither was endorsed by the executive board of nor does it reflect the position of the Steelworkers.

The United Steelworkers of America supports the intent of the embargo and its continuation. We feel that as a nation, and in conjunction with other nations, we must be socially concerned about basic human justice and, if need be, sustain an economic price for that conviction. Furthermore, this is one of the few occasions on which the United Nations acted as the moral conscience of the world. Its effort, therefore, should continue to have the support of this country if the purpose of a United Nations organization is to be meaningful. To break the embargo on this item will surely lead to a breaking of the embargo on other items.

Arguments on the floor indicated that the Senate Foreign Relations Committee had previously rejected this measure; that fully three years before the embargo we were already importing almost 40 per cent of chromite from Russia (49 per cent in 1963); and that there is a governmental request to release 1.3 million tons of chrome from the strategic stockpile, thereby belying any charge of strategic shortage of this mineral.

However, as regards to the threat of job loss in the specialty steel industry in Pennsylvania or elsewhere, it is in no way affected by the importation of chromite from Russia. Our problem in that industry is due to the inordinate levels of specialty steel imports from Japan and Europe and not to the source of chromite imports. To correct the specialty steel trade imbalance we have supported steel

quota legislation and/or voluntary agreements. However, the importation of chrome ore from Russia does not aggravate the importation of specialty steel. It certainly did not do so in the three years prior to the embargo.

The ferroalloy industry is also beset by ferroalloy imports. We have supported their contention before the Office of Emergency Preparedness for quota relief. But the relief was to be directed against ferroalloy imports, for example ferrochrome, and not the ferroores, for example chromite, upon which the industry depends. The lack of access to Rhodesian chrome ore fields does not affect the volume of chrome ore imports. The fact that some ferroalloy producers own properties in Rhodesia should not sway the United States decision to maintain the embargo.

Our problems, therefore, in the specialty steel industry and the ferroalloy industry can be solved by quota controls and not by breaking the Rhodesian embargo on chrome ore. We hope that this untimely and socially indefensible provision of H.R. 8687 will be dropped either in conference or by further action by the Senate. The price of human dignity should not be measured in terms of the cost of chromite in the United States market.

Sincerely yours,

I. W. ABEL,
President.

DEPARTMENT OF STATE,
Washington, D.C., September 13, 1971.

Sen. GALE W. MCGEE,
U.S. Senate,
Washington, D.C.

DEAR SENATOR MCGEE: A section in the Military Procurement Authorization bill now under consideration by the Senate (Sec. 503 of H.R. 8687) would have the effect of exempting US chrome ore imports from the mandatory UN sanctions on Rhodesia. Passage of that Section could seriously undercut efforts at this time to find a more permanent resolution of the Rhodesian problem and to bring an end to the related UN sanctions. As long as the possibility of a solution to the problem exists, we feel it is in our foreign policy interests to do nothing which could set back current efforts. Section 503 of the bill, by suggesting a weakening of US support for the current sanctions against Rhodesia, could unfortunately have this effect.

While not apprised of the details, we are advised that, at the present time, a genuine possibility of a United Kingdom-Rhodesian agreement may be in the offing. On August 2, 1971, Sir Alec Douglas-Home, British Foreign Secretary, said in Parliament, "We are seeking to ascertain whether an acceptable basis for negotiations exists; meanwhile sanctions will continue."

While the sanctions have not been uniformly applied, they have had a substantial and serious effect on the Rhodesian economy and represent the principal pressure by the international community on Rhodesia to come to an agreement with the United Kingdom.

It has been our consistent policy to support British efforts to bring the Ian Smith regime to an acceptable agreement. Preliminary contacts between British Government representatives and Rhodesian officials began several months ago. Their objective was to determine whether a sufficiently broad basis existed for formal negotiations. These contacts were followed by the visit of a high-level British delegation to Salisbury for further talks in June. From the information available to us, those talks in turn resulted in further progress. There are now indications that a settlement may be within reach; the chances for such an outcome look better than at any time since 1968.

It is the view of the Department, confirmed by our talks with the British Government, that passage of Section 503 of H.R. 8687 at this time would adversely affect the current UK-Rhodesian contacts and prospects for an early settlement. Any weakening of the U.S. stance on sanctions could suggest the beginning of an erosion of international support for the position on Rhodesia adopted by the Security Council. This position is an important continuing element in the efforts at a more permanent and internationally acceptable solution to the Rhodesian problem.

Department officers have, of course, testified before your sub-committee on other basic reasons for which we believe continued US support of the sanctions program is in the national interest.

Yours sincerely,

DAVID M. ABSHIRE,
Assistant Secretary for Congressional Relations.

ANTITRUST EXEMPTION OF PROFESSIONAL BASEBALL

Mr. SPONG. Mr. President, on Tuesday, I was pleased to cosponsor with Senators MAGNUSON, COTTON, ERVIN, and METCALF a bill to remove the unique antitrust exemption that professional baseball enjoys today. I am hopeful that the Senate Judiciary Committee will broaden the scope of its present hearings on a proposed basketball merger to include consideration of this baseball legislation (S. 2599) and to review the whole professional sports scene.

The most recent cause for concern about big business baseball was the transfer of the Washington franchise to Texas. But, even if this action had not been taken, I would have urged Congress to take a very close look at baseball's favored status under the antitrust laws and to consider what actions should be taken to assure representation of the public interest in these matters.

Like many other organizations engaged in interstate commerce, baseball has become big business. But unlike any other big business in America today, professional baseball enjoys complete immunity from the strictures of antitrust legislation. It is time, I believe, for Congress to end its long silence on this matter.

Mr. President, I ask unanimous consent to have printed in the RECORD a statement I made before the Subcommittee on Antitrust and Monopoly on September 23, 1971.

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

STATEMENT BY SENATOR WILLIAM B. SPONG, JR., BEFORE THE SENATE ANTITRUST AND MONOPOLY SUBCOMMITTEE, SEPTEMBER 23, 1971

Mr. Chairman, I would like to take this opportunity during the committee's consideration of proposed basketball legislation to comment on the status of professional sports today. I do so as a life long sports enthusiast.

It is because I am a fan that I am disturbed by the growing domination of the field by big business interests and big business psychology. Clearly, profit making is an important side of the game. However, if it is all-important, there is serious question about the claim of organized sports to special consideration under the antitrust laws and its right to other forms of public support it receives.

The Committee today is considering legislation to authorize the merger of the two professional basketball leagues, but the issue involved affects all professional sports. As the Chairman noted in his opening remarks, organized sports asks to be treated as a monopoly. The questions posed are what public interest justifies such a monopoly position and what conditions should be imposed in exchange for this valuable great?

Nowhere is that issue more focused than in the case of major league baseball which is unique among all organized sports in being totally outside the antitrust laws. It is to that subject that I want to direct my remarks today.

As the members of the Committee know, the American League owners Tuesday night agreed to the movement of the Washington Senators baseball franchise to Texas. I was distressed by that decision and by the manner in which it was made. While I do not have the details of what transpired at the meeting, it does not appear that baseball's obligation to the community was a consideration of any consequence at all. Yet it was the Washington community which provided the team with its identity. Public monies helped to build the stadium in which the team played and to underwrite the municipal services which supported the entire operation, and despite discouraging records, the people of this area supported the team by their attendance.

It is true that the turnout this year has been disappointing, but considering the standing of the team that was not altogether surprising. However, looking over the long history of major league baseball in Washington—some 71 years—I think the fans have shown extraordinary loyalty and support. As one example, the Senators drew 918,000 fans in 1969 despite finishing fourth in their division, some 23 games out of the lead. That was a better attendance record than Chicago, Cleveland, California, Oakland, Seattle and Kansas City. Last year, Washington's attendance was a very credible 820,000.

Despite all this, the community had no say in the loss of this valuable franchise and it does not appear that its interests were weighed.

How is it that a small group of men can deprive the Nation's Capital of its team and decide where next to bestow the valuable franchise rights. The answer quite simply is that Congress has not acted to spell out the responsibility of organized baseball to the public. This silence has been construed by the courts as a positive intent to exempt baseball from the laws which affect other professional sports and other big businesses.

Beginning in 1922 when the Supreme Court ruled that organized baseball was not in interstate commerce (*Federal Baseball Club of Baltimore* v. *National League of Professional Baseball Clubs*, 259 US 200) the Court has followed a very narrow application of *state decisis* in this matter. The character of baseball has radically changed since 1922. Today it is clearly involved in interstate commerce. The courts, however, have declined to overrule the initial finding on grounds that Congress's failure to act, despite repeated invitations to do so, expressed an intent to exclude baseball from the operation of antitrust laws. "If there is evidence in this field which now warrants application of the antitrust laws it should be by legislation" the Court said in *Toolson* v. *New York Yankees* (346 US 356).

In its *Radovich* v. *National Football League* decision of 1957 (352 US 445), the Court conceded that the 1922 decision was "a ruling which at best was of dubious validity," but nevertheless insisted that "as long as the Congress continues to acquiesce, we should adhere to—but not extend—the interpretation made in those cases (*Federal Baseball* and *Toolson*)."

Mr. Chairman, clearly the courts have invited Congress to act and clearly the situation demands that we review our responsibilities. The time has come in the development of organized baseball for Congress to protect the public interest and to review the unique immunity that baseball enjoys. Decisions which so deeply affect the public should no longer be left in the hands of a few wealthy club owners acting to maximize their return on investment. The public, too, has an investment in this matter.

On the morning before the decision was made to transfer the Washington Senators, the distinguished sports columnist Red Smith succinctly stated the proposition that faced the owners in that Boston hotel room. He asked: "Will the American League honor the principle established in the Seattle case—that men who take over a franchise and fail with it should be reimbursed for their losses, relieved of their burdens, and rewarded for their incompetence with a quick profit."

We now know how the owners answered this question. And, while the decision Tuesday concerned the Washington Senators, the decision next year or the year after could affect any city now holding baseball franchises—Cleveland, New York, even some day Dallas-Fort Worth itself.

I do not believe mismanagement should be rewarded. It is time that the interest of fans and of the sport itself be given equal weight with the interest of business.

Mr. Chairman, I have taken note of your proposed amendment to create a federal commissioner of athletics to oversee the activities of all professional sports, including baseball. While I have reservations about involving the federal bureaucracy in professional sports, I, nevertheless, agree that the situation demands representation of the public interest. I hope this Committee will expand its hearings to consider this broader issue, inquire into the recent history of baseball franchises, as well as end the long silence of Congress on the subject of baseball's favored status.

SOVIET UNDERGROUND NUCLEAR EXPLOSION

Mr. BAKER. Mr. President, at approximately 2 a.m., eastern daylight time, September 27, 1971, seismic signals from Novaya Zemlya, a nuclear test area in the Russian Arctic, indicated that the Soviet Union had detonated an extremely large nuclear warhead. Initial indications were that the test was in the range of 2 to 4 megatons.

This is apparently the second in a series of similar nuclear tests, the previous one detected on October 14, 1970, on Novaya Zemlya Island.

Tom O'Toole, in the Washington Post of September 28, speculates that the Soviet Union is conducting ABM warhead tests. I expect that he is probably right. O'Toole opines that the Soviets want to get their ABM testing out of the way before SALT negotiations resume and attributes to the United States a comparable reason for the Cannikin test in Amchitka next month. I ask unanimous consent that Mr. O'Toole's article be printed in the RECORD at the conclusion of my remarks.

There can be no doubt now about the urgent importance the Soviets attach to the development and testing of an effective active defense system. There is little doubt in my mind that the Soviets are far ahead of us in this task.

I, of course, cannot speculate for the reasons the Soviets chose to undertake underground nuclear tests of these very large weapons now or whether they relate to SALT. However, I think it is clear that the Cannikin test is not so related since the October 1971 date for the test was planned early in 1969, long before the SALT negotiations were undertaken.

I fully understand the concern of many for the possible effects of the detonation of a very large nuclear device underground, or any place else for that matter, but I think the careful, meticulous planning and testing in preparation for Cannikin has minimized the likelihood of any environmental impact. As reported by the press, some criticism of the content of the environmental impact statement filed for Cannikin has been expressed by some. One of our distinguished colleagues recently was heard to say that in that regard that he wondered if anyone had ever written an environmental impact statement on a preemptive first strike on the United States by a foreign power.

In any event, it seems clear that the Soviets are well along in the testing of warhead designs for their ABM's, and that especially now that negotiations are active and optimistic at SALT, we dare not fall behind in our development of an active defense system and that Cannikin has been carefully prepared.

I hope the shot will occur on schedule in October. I think it is vital to the future stability and peace of the world.

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

HUGE SOVIET UNDERGROUND BLAST RECORDED ON ISLAND IN ARCTIC

(By Thomas O'Toole)

The Soviet Union yesterday conducted a large underground nuclear explosion that might have been a test of a warhead for its Galosh antiballistic missile.

The test, which took place on the Arctic island of Novaya Zemlya at 2:04 a.m. EDT, was recorded by United States seismic instruments as a force equal to between two and four megations, which is 2 million to 4 millions tons of TNT.

This would make yesterday's Soviet test the second largest underground nuclear explosion in history. The largest was a Soviet test on Novaya Zemlya last Oct. 14, recorded by the U.S. Atomic Energy Commission as a force between three and six megatons.

The Soviet test came at a time when the U.S. is preparing to conduct an underground weapons test on the Aleutian island of Amchitka. The projected U.S. test is to have a force of five megations, making it the largest U.S. underground test and at least as large as last year's record Soviet blast.

Code-named Cannikin by the AEC, the U.S. test—scheduled for sometime in the last two weeks of October—is to be the first test of a warhead for the Spartan antiballistic missile.

U.S. sources said that yesterday's Soviet test was probably a test of an ABM warhead, either for the 200 mile-range Galosh or for an advanced and longer-range version of Galosh.

One reason the Soviet Union and the United States may be conducting ABM warhead tests at this time is to get them out of the way prior to resumption in November of the SALT negotiations.

INCREASED TRAIN SERVICE TO NEW ENGLAND

Mr. PELL. Mr. President, I am delighted to announce that Amtrak is planning a significant increase in rail passenger service in the Northeast Corridor.

As one who has long advocated increased rail passenger service in our country's urban corridors, I commend Roger Lewis, president of Amtrak, and other officials of Amtrak for their decision to increase rail service in the Northeast Corridor and to improve service connections in other parts of the country.

It is my own belief that increased service in our country's urban corridors will result in a significant increase in Amtrak's revenues and provide significant relief to the urban traveler in our country's congested megalopolises.

I ask unanimous consent that the letter from Roger Lewis announcing increased rail service be printed in the RECORD.

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

SEPTEMBER 29, 1971.

Hon. CLAIBORNE PELL,
U.S. Senate,
Washington, D.C.

DEAR SENATOR PELL: The suggestions you made in your letter of the 10th of September for improving service in the Northeast Corridor were excellent.

Your suggestions reduced to writing those you made to me orally in our conversation of six weeks ago. I assured you then that we would take your suggestions very seriously. I can report to you that we have done so, and that effective with the new schedules which will become operative around the middle of November:

(1) Improved standard equipment will go into service in the New York-Boston portion of the Northeast Corridor.

(2) Every effort is being made to obtain a sufficient number of reliable power units so that schedule delays can be avoided during the coming winter months.

(3) With two exceptions, trains via the Shore Line route between New York and Boston will make the run in 4½ hours or less.

(4) Frequencies between Boston and New York will be increased from eight to eleven trains in each direction; ten trips in each direction will operate via the Shore Line. The eleventh trip will operate via Springfield and Worcester (replacing a present trip which operates between New Haven and Boston via that route tied into a Shore Line train at New Haven.

(5) There will be a total of fourteen trains a day to/from New England via the Penn Station Gateway, five more than at present. As mentioned above, ten of these will operate to/from Boston via Providence, one to/from Boston via Worcester, two to/from Springfield and a new Metroliner service between New Haven and Washington.

(6) With minor unavoidable exceptions, schedules are being regularized in and out of New York and out of Boston and Providence so that the average man can commit them to memory.

(7) Whereas there are now only six through services per day north and south through New York, this will be increased to nineteen as follows:

6 NB, 5 SB through trains Boston-Washington via Providence.

1 NB, 1 SB through train Boston-Washington via Springfield.

1 NB, 1 SB through train Springfield-Washington.

1 NB, 1 SB additional through train Springfield-Washington after December 17.

1 NB, 1 SB through *Metroliner* New Haven-Washington.

(8) Metroliner services between Washington and New York have been better coordinated with Boston schedules to permit good connections. We except to be able to effect cross platform connections in most instances at Penn Station, N.Y.

(9) Through service without changing trains between New England and the South will be instituted in two stages. First, through service via the Southern Railway to Atlanta, Birmingham and New Orleans, and via the C&O to Charlottesville, White Sulphur Springs, Cincinnati and Chicago will be inaugurated. Second, through cars between Boston and both coasts of Florida will begin around the middle of December.

It will also actually be possible to ride from New England through to Los Angeles on the tri-weekly transcontinental sleeping car via the Southern Railway.

We greatly appreciate the help you have been to us not only in improving service in the Northeast Corridor, but in making constructive suggestions for improving services generally. We are grateful for the confidence you have expressed in Amtrak's ability and determination to reverse the dismal recent history of railway passenger service, and to establish in the United States a modern, efficient, and enviromentally acceptable intercity rail passenger service to serve our travelling public.

With kindest regards,

Sincerely,

ROGER LEWIS,
President.

ATTICA AND PRISON REFORM

Mr. HARTKE. Mr. President, too often it takes a severe crisis to provoke serious efforts to achieve long-overdue change. The recent tragedy at Attica has caused our Nation to take cognizance of the fact that our prisons are infected with neglect and decay. There have been calls for a return to the hard line, but proponents of that view ignore the fact that it is the hard line which has caused the current crisis.

For decades we have been content to place those who have violated society's laws out of sight. We have imprisoned for punishment rather than rehabilitation. That has been the easier and less costly approach for society, but in the long run it has caused more trouble and more expense than all of the alternatives combined.

At this time when we consider what should be done to avoid future prison riots, an address by Chief Justice Warren E. Burger entitled "Correction Systems That Do Not Correct" is most appropriate. The speech, given last year, was recently reprinted in the New York Law Journal. Mr. President, I ask unanimous consent that it be printed in the RECORD.

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

CORRECTIONAL SYSTEMS THAT DO NOT CORRECT

(By Warren E. Burger)

In this setting where we have been reminded of some of the old truths that have guided mankind in the Western World for more than 2,000 years, it seems fitting to talk again about the problems we have in dealing with those who break our temporal laws and are in need of correction.

I discussed with you last year on this same occasion our correctional systems that do not correct and how our national trait of impatience has distorted our approach to the problems of prisoners and rehabilitation. Our approach has much in common with what clergymen call their "Sunday Christians." In the field of treatment we are to a large extent "Sunday Christians." We profess a commitment to rehabilitation of delinquents but we do not practice it very much. Many of us speak of it at Bar association gatherings, and I suspect most people including legislators would agree on what we ought to be doing in terms of the objectives. To state the objective is simple. All rational people would agree that we want to have the prisoner leave prison with an ability to make an honest living by his own effort and with the will or motivation to do just that.

DECENT, ENLIGHTENED

We can all agree with that for at least two reasons. It is the decent and enlightened thing to do—and we all want to be decent and enlightened—and in addition it is the sensible and profitable thing to do because it would save precious lives and billions in the cost of crime. The *Wall Street Journal* recently told that investment analysts looking for new profitable business estimated that Americans—individuals and corporations—now spend at least $2 billion a year on plant and home protection and crime control alone.

This money is spent for protection from the people who, for the most part, are "graduates" of the noncorrecting correctional systems I spoke of. What a paradox it is that we spend these billions on private police forces, millions on the defense of persons accused, and yet have so little regard for the need to change the people we send to our prisons.

This is why it would be sensible, apart from any humane motive, to break this destructive cycle of criminal lives.

But an enlightened society that professes adherence to our great Western traditions ought to rest its policies and programs for human being on a higher plane than simply sound business or good policy. And yet we can rejoice that on this problem sound business principles and high ideals will carry us to the same conclusion: a concern to restore the subject to useful life.

We have come a great distance in recent years in bringing the early stages of criminal justice to a point where no person charged with a serious offense is without the protection that only a lawyer can give. The ABA has had a major part in this with defender programs and the Criminal Standards Project.

PROGRESS CITED

Now in this past year the ABA has taken a most significant step by creating the Commission on Corrections and Correctional Facilities with former Governor Hughes of New Jersey as chairman of a most distinguished commission. At last, we have taken a first step to move ourselves away from a system which has concentrated too much on contention and too little with concern for the consequences of a determination of guilt.

The creation of this commission may in future be seen as the point when our thinking as lawyers entered a new phase—one in which we see criminal justice as a spectrum beginning with arrest, through the court processes and then covering the entire custodial period and supervision after release.

Our national trait of impatience to get results probably helped take us to pre-eminence as a great industrial power as it made us first to reach the moon. But impatience for quick results does not contribute to reforming wayward people whether they are in or out of prison.

I have a suggestion to propose to you and it is this: that you make it a point to visit the penal institutions in your own state to see first hand what lies behind prison walls and what we do to rehabilitate and reform the people we send there. All too often you will find yourself in a building a century old, with little or no recreational facilities—and this is terribly important when you see how many of the inmates are young and vigorous men. The library, if any, it likely to be inadequate. The educational programs are limited and vocational training is likely to be out of date. All too often you will find two men in a cell six or seven feet by ten feet in dimension—a cell built for one prisoner long, long ago.

Counselling by well trained personnel or psychiatrists and psychologists will be limited and far less, for example, than is found in Sweden, Denmark or Holland.

If what you find in your state is better than this, count yourself and your state fortunate.

FACILITIES SUBSTANDARD

All correctional systems in this country have approximately 200,000 prisoners in custody and many on parole. Most of those in custody are in gravely substandard institutions and those on parole have inadequate supervision because of lack of probation officers.

Can you conceive of any important business enterprise in this great industrial nation being run this way with little or no concern for the quality of performance or output? The American people would not tolerate the conditions that exist in most prisons if they could see them and see the frustration, the waste and the absence of facilities and programs to change men who are there.

But let me turn away from any analogy to business and self-interest and recall the stories of the Prodigal Son and the ninety and nine who did not stray, and then the rejoicing that attended the one who strayed but returned to the fold. Here, surely, we see that we have not practiced what we have preached.

In this complex, troubled and baffling world perhaps we need to turn our thoughts more often to the simple parables of the Bible. If we use them as a guide we will find a way to do something better than we now do in our institutions of correction. And again, I urge each of you to visit your own institutions and see what you as a citizen are responsible for in dealing with one of the major factors in a rising crime rate.

A SALUTE TO SENATOR ELLENDER ON HIS 81ST

Mr. PERCY. Mr. President, I belatedly add my congratulatory comments in recognition of Senator ELLENDER's 81st birthday. I was regretfully in Illinois at the time celebrating my own 39th birthday for the 13th year in a row. I am pleased to be able to extend best wishes to Senator ELLENDER on this occasion.

I think that this year I finally learned the secret of his longevity: Cajun cooking. It has been my pleasure to several times accept his kind invitation to delight in the fare prepared by his own hands, a delicious combination of gumbo and pralines. I know now what accounts for the chairman's spirited lease on life.

But if the secret of Senator ELLENDER's longevity is not Cajun cooking, it must be his buoyant and energetic approach to life. Having had the opportunity to serve under his leadership on the Appropriations Committee, I am convinced that this is the means by which he has survived with such enormous success his 35 years in the Senate. Senator ELLENDER is an inspiration to many of us who must still be considered "newcomers" in comparison to his record. I wish him a very happy 81st birthday and many more such anniversaries in the future.

EQUAL RIGHTS FOR WOMEN

Mr. HARTKE. Mr. President, once again we have reached that time of the legislative year when there is discussion about the need to guarantee the rights of women. A democratic society cannot tolerate arbitrary discrimination without thereby weakening its own foundations. That has been the undeniable lesson of history, and that is the lesson this Congress is being asked to recognize by passing the equal rights amendment.

I recognize that many questions have been raised about this amendment, but I am afraid that most of the arguments posed by these questions are fallacious and mere stalling tactics. The amendment does not prohibit reasonable classifications based upon sex. Instead, it proscribes discrimination—arbitrary discrimination—because of sex. Any argument which suggests that the passage of this amendment will eliminate those classifications based on sex which are reasonable and necessary ignores the history of the equal protection clause of the 14th amendment.

Recently, the Governor's Commission on the Status of Women in Nebraska adopted a resolution in support of the equal rights amendment as it is expressed in Senate Joint Resolution 79, which I introduced on April 1 of this year. Mr. President, I ask unanimous consent that the statement of that commission be printed in the RECORD.

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

GOVERNOR'S COMMISSION ON THE STATUS OF WOMEN, LINCOLN, NEBR.

To the Honorable Members of the United States Congress.

To the Honorable Members of State and Local Commissions on the Status of Women.

To Governor J. James Exon, State of Nebraska.

To State Senator William H. Hasebroock, Speaker, Nebraska Legislature.

We believe the action taken at the August 28, 1971 meeting of the first statutory Nebraska Governor's Commission on the Status of Women will be of interest to you. We urge your support of the Equal Rights Amendment in its original form.

Thank you,

Mrs. HELEN HAGGIE,
Chairman.

* * * * *

Whereas, the Nebraska Commission on the Status of Women is by statute a commission established to develop the potentials, interests and talents of Nebraska citizens.

Whereas one of the stated objectives of the Commission is the equality of opportunities for men and women,

Therefore be it hereby resolved, the Nebraska Commission on the Status of Women go on public record favoring the Equal Rights Amendment in its original text, "Equality of rights under the law shall not be denied or abridged by the United States or by any State on account of sex."

* * * * *

YEARS OF INTERNATIONAL SERVICE BY RICHELIEU CLUB

Mr. McINTYRE. Mr. President, it gives me a great pleasure to share with Senators the record of 15 years of fine service by the Manchester chapter of the Richelieu Club—an international service organization spanning three continents and many thousands of members.

Founded in 1956 as the very first such club in the United States, the Manchester chapter has distinguished itself on many occasions by its selfless devotion to the service of its community. It has certainly always personified the great French ideals of liberty, fraternity, and equality.

In just a few short years, the Richelieu Club, of Manchester, has made itself felt as a contributing part of the city in many areas.

It sponsors a baseball and hockey league for the children of the city. It has taken the assistance of needy children as its main work, sponsoring many children who would otherwise not be able to afford it, at summer camps in my State.

It has regularly donated special hospital equipment to be used by underprivileged and disabled children.

It donates time and money to the girls club and Boy Scouts, sponsoring one troop of Boy Scouts from St. Peter's Orphanage.

It works with the Salvation Army around Christmas time. It regularly sets aside days for its members to donate blood.

Mr. President, the group is perhaps best known in Manchester for the annual summer beach party. Each summer, members of the Richelieu Club takes all of the orphans in the city—from St. Peter's, St. Patrick's, and the Manchester home—and take them to the beach for a day of sun, games, and prizes.

Mr. President, the Manchester Richelieu Club was recently honored when one of its own, Mr. Louis I. Martel, was elected president of the international organization. He is the first U.S. citizen to serve fully as president of the Richelieu international clubs, and I believe it is altogether fitting that the first U.S. president should have come from the first club established in the United States.

Mr. President, I want Senators to know how proud I am of this club. I want them to know what a fine service they perform—not just in Manchester, N.H., but all across the world. I want to warmly congratulate them on their 15th birthday.

STREAM DAMAGE

Mr. HARTKE. Mr. President, a stream's history can be traced by studies of its biological inhabitants. Unfortunately, with almost all of our Nation's waters such studies would not only trace historical development, but would serve to confirm the damage which man's work has done to his natural environmental inheritances.

An article written by Phil Ault, of the South Bend Tribune, attests to the plight of our waters and is but one of many discouraging stories to be told. I hope that articles like this will prompt action allowing us to write an environmental history with a happy ending.

Mr. President, I ask unanimous consent that Mr. Ault's informative article, entitled "Disappearing Clams Reveal River's Plight," be printed in the RECORD.

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

[From the Tribune, South Bend, Ind.]

DISAPPEARING CLAMS REVEAL RIVER'S PLIGHT

(By Phil Ault)

The St. Joseph River is a stream for patient men. They are in evidence along its banks every summer day, quietly sitting at the water's edge while their lines drift in the current, only rarely tugging taut at the bite of a fish.

Those who frequented the river in the summer of 1970 often saw another patient man at work. Sometimes he was scraping the muddy shore with a rake. On other days he was in a boat, or bent over in close scrutiny of the river bottom, digging up an occasional object by hand.

Dr. Clarence F. Dineen of the biology department of St. Mary's College was collecting specimens of mollusks—clams and snails—in a study of the river.

Relatively little scientific examination has been made of the river that wanders from Michigan down through Indiana, through the cities of Elkhart, Mishawaka and South Bend, and then northward into Lake Michigan. Fishermen know the lore of the river's shallows and currents, and where the best specimens can be caught. Experts of the Indiana and Michigan Electric Co. can expound in detail about the seasonal rates of water flow in the stream. But not much has been recorded about the hidden living organisms that inhabit the river's bottom and edges, whose presence can be a barometer of the stream's well-being and state of pollution.

Dr. Dineen spent much of the 1959 summer digging up specimens of mollusks from the St. Joseph River watershed, the main stream and its tributaries. In 1970, he devoted his summer to probing the same area again for comparison purposes. His work in the main river was concentrated in the stretch that flows through Indiana, from the state line north of Bristol to the point where the river flows back into Michigan north of South Bend.

What Dr. Dineen found was surprising. During the 11-year span the number of species of bivalves existing in the river was reduced by half, from approximately 20 to 10.

The number of individual mollusks in the various species decreased correspondingly.

The St. Joseph River simply isn't the happy homestead for clams that it once was, especially when it is remembered that half a century and more ago the river supported a small pearl button industry using clams taken from its bottom.

In a paper published in the Proceedings of the Indiana Academy of Science, Dr. Dineen offered comments on why this change has taken place. Much of it, he reports, is due to a change in river habitat. The bivalves need a stable habitat with firm sand and nonpolluted water, along with plankton for feeding and calcium carbonate in the water to build their shells.

"New bridges, roads, retaining walls, and landfills have destroyed many stable habitats," he explained. "Many of the small tributaries of the St. Joseph River have been diverted into ponds and small lakes."

High speed motorboats and water skiers also disturb the clam beds.

This rolling of the river's banks and bottom has changed the temperature of the water in some places. When the river flow is more sluggish and at lower levels, as during a drought, the water temperature rises. This harms the clams, which prefer cooler water.

Sediment from erosion, agricultural practices, and housing developments has muddied the waters.

Man-made pollution contributes to the decline, too. "Domestic sewage and industrial wastes, in spite of recent abatement meas-

ures, have considerable influence on the molluscan populations."

Dr. Dineen explained, "Pollution of the river is not only from human causes, but from sediment. It cuts the algae and food supply in the stream. While from the standpoint of human pollution, the St. Joseph is improving, it is getting worse from sediment."

An abundance of clams helps to purify a river because they suck in organic material in the water, digest it, and recycle the water into purified form.

The changing conditions in the river bottom have led to a decline in the carp population, while the more desirable smallmouth bass and catfish are on the increase, he has found. The fewer carp, the better for clams, because carp wallow around on the river bottom and stir up the sediment.

It may be news to those patient men who succeed in pulling fish from the St. Joseph's waters that these fish are the transportation system for clams, the underwater buses on which they hitchhike rides to new areas in the river.

Few people look upon the clam as one of nature's more exotic products, but for those who study its habits there is fascinating evidence of the rhythm and ingenuity of the natural cycle.

There are male and female clams, of necessity, but only a clam can tell the difference from looking at the shell. After developing in the mother's gills, the little clams go out into the watery world as glochidia varying in length from an infinitesimal 1/500th of an inch to 1/50 of an inch.

Cast loose from their mother, the brood numbering from 100 to 3,000 sinks to the river bottom Passing fish stir up the bottom and the glochidia hook onto them. They must do so within a few days, or perish.

Having become the unwitting host to these tiny creatures—a large fish may carry as many as 3,000—the fish obligingly walls them off by growing a tissue called a cyst. The infant clams ride along as the fish swims up and down the river, for 30 to 200 days, then drop off. If they happen to land in hospitable river bottom, they survive and thrive.

Fresh water clams such as those taken from the St. Joseph River are edible if properly prepared, but the effort is hardly worthwhile because they are not exactly nectar for the gods. Piles of shells left around old camping grounds showed that the Indians ate them, probably by baking. A boiled freshwater clam has approximately the consistency of shoe leather.

To an expert the shell of a clam reveals significant facts. The rings on the shell indicate the mollusk's annual growth, which is concentrated in spring and summer. Clams live as long as 13 years. Even a creature as secretive and unobtrusive as a clam has its enemies in nature. Dr. Dineen has found piles of shells along the St. Joseph that have been opened by raccoons and muskrats, which eat the soft matter inside. Catfish and sheephead are among the piscatorial enemies of the clam. Turtles and mink also are clam hunters.

Along with the Latin names, the species of clams found in this area bear more earthy commonplace names such as the purple warty-back, the fat mucket, the lady finger, and the pocketbook.

The shiny inside of the shell is the nacre, or mother of pearl. It is this material that makers of pearl buttons used before synthetic materials destroyed the trade in the 1950's. Several species of clams found in the St. Joseph are suitable for button making, although their numbers have diminished sharply.

Starting in the 1890's and continuing until about 25 years ago, a substantial button making industry operated along the lower stretch of the St. Joseph. Berrien Springs was the center of the trade.

Flat bottomed scows about 12 feet long with clamming devices attached to their sides were used to collect clams from the lower river. The shells of the commercially valuable species, which are the ones with sufficiently thick shells of the proper color, were purchased from clam diggers for up to 5 cents a pound. As late as 1929, the Michigan Department of Conservation sold 250 licenses a year to clammers on the St. Joseph.

The buttons were cut from the pearly inside of the shell by a dealer in Berrien Springs. Properly cut, a medium size clam shell produced approximately 20 half-inch buttons or 14 three-quarter inch ones, or about 100 to 140 a pound.

This button business diminished as the number of suitable clams did until its death in the early 1950's.

For hunters of freshwater clams, there is always the possibility that an opened shell will reveal a pearl inside. Pearls of excellent quality have been reported taken from Michigan mussels, but the finds are too rare to justify organized searching.

Single pearls can indeed bring a great price, one having sold for $10,000. They are formed inside the shell as the muscular mantle secretes material around a foreign object such as a grain of sand that penetrates to the inside. This object is covered with mother of pearl the same as the lining of the shell.

The Japanese have developed the cultured pearl industry, making oysters produce pearls to order by the artificial insertion of material to form a nucleus.

Surprisingly, many of the best Japanese cultured pearls have nuclei taken from clam shells dug from the bed of the Wabash River in Indiana. Shells from the Wabash have an extraordinary translucence which makes them desirable for this highly specialized use.

Clam shells without blemish dug from the Wabash are cut into small cubes. When placed between rotating discs with an abrasive, the cubes are worn down until they become spheres about one fourth inch in diameter. From one to five years are required for a Japanese oyster implanted with a fragment of Hoosier clam to produce a cultured pearl, but when it does so, the product is of superior quality.

The clams of the St. Joseph River system claim no such exotic role, but for Dr. Dineen and other biologists they tell a discouraging story of what man's works have done to the stream we inherited and abused.

EMERGENCY TRANSPORTATION STRIKES

Mr. GRIFFIN. Mr. President, the current west coast dock strike is a good example of the severe and far-reaching effects of strikes affecting transportation of goods.

In this case innocent parties—particularly farmers and consumers—are suffering from a labor dispute over which they have no control.

This strike, like recent railroad strikes, illustrates the need for comprehensive legislation to deal with crippling strikes in the transportation industries, including the longshore and maritime industries.

I introduced such legislation on behalf of the administration last February, and I am pleased to note that during the past few weeks a subcommittee of the Labor and Public Welfare Committee has been holding hearings on my bill, S. 560, and others. Hopefully, these hearings will produce effective legislation.

Mr. President, I ask unanimous consent that a statement issued today by the Honorable Clifford M. Hardin, Secretary of Agriculture, concerning the dock strike, be printed in the RECORD.

I also ask that testimony which has been presented in support of S. 560 by Assistant Secretary of Agriculture Palmby, Labor Secretary James D. Hodgson, Transportation Secretary John A. Volpe, and Deputy Director of Inland Traffic, Military Traffic Management and Terminal Service, Department of Defense, Paul R. Chagnon, be printed in the RECORD.

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

STATEMENT OF SECRETARY OF AGRICULTURE HARDIN

WASHINGTON, September 29.—Secretary of Agriculture Clifford M. Hardin at noon today issued the following statement on the effect on farm prices of dock work stoppages:

"U.S. farmers are losing business every day and are continuing to suffer a tragic loss in income from prices that are depressed because their products can't move to market.

"Right now, wheat that ordinarily would be moving to Japan is piling up in elevators and spoiling on the ground because of the West Coast dock strike. Perishable fresh fruit and vegetables can't wait for the strike to end, and this business will be completely lost.

"As these products pile up, it adds to the burden of supplies that seek an outlet here at home—and this depresses U.S. farm prices. Further, the transportation tie-up forces foreign buyers to look elsewhere for their supplies—which causes an immediate loss in our sales and sets up trade relationships between foreign buyers and new sources of supply that will be hard to break.

"Right now there is the threat of a strike on Gulf ports. That would be even more of a catastrophe for the nation's farmers. Even now, the mere threat of a strike is hurting. Elevators are reluctant to buy the new crop because they don't know when they can ship the commodities—and they know that if the ports are tied up prices on the supplies they hold will drop lower.

"This is particularly hard on farm prices and the nation's farmers right at a time when they have record harvests to move to market.

"It would be a disaster to the nation's farmers if Gulf Coast ports were to be tied up for any length of time. A previous Gulf Coast strike in 1969 turned around an upward trend in farm exports; export totals dropped $570 million under the previous year. Soybeans, feed grains, wheat, cotton, meat and meat products all lost substantial sales.

"President Nixon said on Saturday that 'we cannot tolerate a continuation of this pattern of delay and slow progress toward an ultimate settlement' of the West Coast longshoremen's strike. 'The time is overdue for the parties involved to live up to their responsibilities to the American people.'

"I join the President in asking that the participants in this strike on the West Coast, and the one threatened on Gulf ports, listen to the appeals of their fellow Americans to move food and farm products at this critical time. At this moment, we are engaged in a national effort to control inflation, restore our competitiveness in international trade, and improve our balance of payments. It is a time for all of us to look up to this challenge and respond to it."

TESTIMONY IN FAVOR OF S. 560 THE EMERGENCY PUBLIC INTEREST PROTECTION ACT: STATEMENT BY ASSISTANT SECRETARY OF AGRICULTURE FOR INTERNATIONAL AFFAIRS AND COMMODITY PROGRAMS, CLARENCE D. PALMBY, SEPTEMBER 28, 1971

The U.S. Department of Agriculture strongly supports the proposed Emergency Public Interest Protection Act of 1971 as a

reasonable effort to deal with disputes between labor and management which arise in the transportation industries.

America's farmers depend for their very livelihood on our national transportation system, as indeed do all of our industries and consumers. However, our national transportation system is now being critically impaired because we lack a workable mechanism for quickly and equitably settling labor-management disputes. We fully realize that work stoppages are only one part of the transportation crises facing this nation. But we *must* find a better way to deal with labor disputes if we are to have the transportation system that a strong and growing U.S. economy requires.

Most of our people live far away from the farms that produce most of the food and fiber they need. Because we have had good transportation and marketing systems, our farmers are able to produce where soil, climate, and economic conditions are most favorable. The food is then shipped rapidly and efficiently to the great Metropolitan centers where it is needed. If our transportation system is stopped for any length of time, this represents an intolerable threat to the public. It is also an intolerable threat to farmers who may be unable to market their crops.

There is another vital reason for our concern about transportation tie-ups—and this is the effect of transportation stoppages on this nation's balance of payments through our agricultural exports. President Nixon recently told a joint session of this Congress that economic progress in the world has dramatically altered the relationships between the U.S. and other great trading nations, and that "we are now being challenged to protect the value of the dollar and to learn once again to be competitive."

Farmers have long known they must compete and have known how to compete as indicated by the fact that we are the world's largest exporter of farm products. Agricultural exports reached a new high of $7.8 billion last year. And farm exports contributed more than $6 billion to the nation's commercial trade balance last year. Without the favorable ratio of farm exports to imports, our balance of payments would have reached the crisis stage long ago.

But farmers are aware that their competitive position is in jeopardy—through no fault of their own—if they cannot depend on our transportation industries to move their farm products. In world markets, our crops have to compete directly with commodities from other countries . . . and if buyers cannot depend upon getting a dependable quality and quantity of U.S. products, they will buy what they need from others.

The present West Coast dock strike offers a prime—if tragic—example of what can happen. While our farmers sit by—helpless to act—they see much of their foreign market going right down the drain. For the months of July and August, an estimated $215 million worth of farm products, which would have moved through West Coast ports, could not be delivered. About $40 million of that amount was in fresh fruits and vegetables—perishable products that cannot wait for a strike to end . . . and 60 percent of that business is lost and will be difficult—if not impossible to regain.

Wheat that would normally be moving to our leading single country customer, Japan, is piling up in elevators and even spoiling on the ground, because it cannot be shipped. The Japanese, who have been trying to diversify their farm product purchasing because of the threat of transportation stoppages from this country, are making other arrangements to buy wheat from Australia and Canada. Our agricultural attache in Tokyo reports the known loss of U.S. agricultural export business with Japan because of the strike totaled $7.7 million for one 2-week period in July.

The West Coast dock strike cannot be viewed as an isolated instance. We've had rail strikes and threatened rail strikes averted only by last-minute Congressional intervention. And right now we face the threat of a strike of Gulf Coast ports—which would be even more of a catastrophe of agriculture. As important as West Coast ports are to U.S. farmers; the Gulf Coast ports are even more vital. Last year nearly half of our agricultural exports were shipped from Gulf Coast ports.

So as we debate this issue today, the combine sickle bars are busily clipping through the fields of Corn Belt and the Plains States, harvesting the biggest crops of grain and soybeans in this Nation's history. Millions of bushels of these commodities are normally destined for export through the Gulf ports. Farmers are counting on these export sales to keep them in business. Elevators and rail and barge lines have carefully planned how to move these tremendous crops to terminal elevators to await the ships which even now may be at sea. In Europe and the Orient, U.S. businessmen are negotiating sales contracts that will bring badly needed cash flowing into the United States.

The mere threat of the strike has already hurt. Elevators are reluctant to buy the farmer's newly harvested crops because they don't know when they can ship the commodities, or what kind of market losses and price drops may occur even if they can eventually ship. Foreign buyers are looking for other sources of supply—in case of the strike.

The 115-day strike at Gulf Coast ports two years ago offers a good example of how a transportation strike can hurt—not just the farmers but the entire economy of the nation. When the strike began, our farm exports had been trending up for several years. At the end of 1969, however, our farm export totals were $570 million short of the previous year.

A U.S. Department of Labor task group studying the effect of this strike noted . . . "most U.S. (agricultural) exports face competition from nearly identical commodities. Even soybeans, (a leading U.S. agricultural export) face competition from other oilseeds and their products. Inability to make delivery will mean loss of a particular sale, but need not mean permanent loss of the market. However, loss of a particular sale will often make it more difficult to repenetrate the market. For example, millers adjust their grist to the specific type of wheat they are using; once they have shifted from say U.S. wheat to Australian or Argentinian wheat, shifting back involves both costs and inconveniences. Shifting back to soybeans from some other oilseed will involve comparable problems."

Partial estimates of business *lost* by U.S. farmers *during* that strike: *Soybeans:* 10 million bushels of beans and 300,000 short tons of soybean meal—valued at $50 million—lost to fish meal, rapeseed, peanuts, and palm oil. Competitors benefitting were Peru, Argentina, India, Africa, Malaysia, and China. *Feed grains:* 900,000 metric tons, valued at $58 million; France benefitted by 300,000 tons of corn. *Wheat:* 30 million bushels, valued at $50 million, lost to Australia and Argentina. *Meat and Meat Products:* 20 million pounds, representing about $5 million, replaced in part by Argentina. *Rice:* 3 million cwt., worth $29 million, replaced primarily by Thailand. *Cotton:* 200,000 bales, worth $39 million, with Sudan, UAR, Brazil, Peru, and Colombia benefitting.

At this critical time as we try to get our economic house in order, we cannot afford these continuous threats to our transportation system. Dependability is a vital factor in building and holding export markets.

As a nation we must begin to think seriously about the economic cost of not being able to settle our transportation disputes without loss to farmers, to our entire economy and to our nation's competitive position in world markets.

I urge the fullest support of this proposed legislation—now—in the belief that it will help us accomplish the important goals set out recently by President Nixon.

STATEMENT OF JAMES D. HODGSON, SECRETARY OF LABOR, BEFORE THE SUBCOMMITTEE ON LABOR, SENATE LABOR AND PUBLIC WELFARE COMMITTEE, ON THE TRANSPORTATION INDUSTRY, JUNE 15, 1971

Mr. Chairman and Members of the Subcommittee: I am glad you have given me this opportunity to be with you this morning to discuss the Administration's proposal to deal with the problem of emergency labor disputes in the transportation industry. It was just last month that I was here discussing with you the crisis brought about by a threatened walkout of the railway signalmen. As the President said in his Message to Congress of May 17th concerning that crisis—

The time has long since passed for active consideration and action by the Congress on the proposals which I have twice presented to it to resolve emergencies such as this in an equitable and conclusive manner and, thus to preclude the necessity of congressional action on each individual dispute.

The examination which this Subcommittee begins today will, and must, I believe, result in much needed statutory reform in a critical area of labor relations policy:

Reform which will redound to the benefit of labor and management, alike;

Reform which will ease the burden on the Congress and the courts;

Reform which will rationalize labor relations in the transportation industry, serve the public need for critical services and enhance free collective bargaining in one of our Nation's most basic industries.

The members of this Subcommittee are very aware of the extraordinarily difficult time experienced in recent years in transportation industries in general, and the railroad industry in particular, in the negotiation of collective bargaining agreements. The Railway Labor Act has proven incapable of establishing a meaningful collective bargaining atmosphere. The Taft-Hartley Act—though its record is clearly better—has not always been able to prevent national emergency work stoppages in the sectors of the transportation industry it covers.

It is to correct these deficiencies and to provide more effective protection for the public against the harmful, disruptive effects of major work stoppages in the transportation industry that I am here today to urge passage of S. 560, the Administration's Emergency Public Interest Protection Act.

To understand the critical situation in which we find collective bargaining in the transportation industry, let us look at the historical experience we have had over the years with the Taft-Hartley Act and the Railway Labor Act. To make a judgment on these two statutes we must ask the question—how effective have they been in providing a climate for the private settlement of labor disputes in the transportation industry?

Turning first to the Taft-Hartley Act, we find that most major industries except railroads and airlines are subject to its emergency procedures.

Briefly, these procedures empowers the President to appoint a Board of Inquiry when he believes that a work stoppage or a threat of one imperils the Nation's health or safety. After the Board of Inquiry has reported on the issues involved in the dispute, the President may direct the Attorney

General to petition a Federal District Court to enjoin the strike for an eighty-day cooling-off period. During the eighty-day period, the Board of Inquiry makes a second finding of fact and the employees are given the opportunity to vote on the employer's last offer.

If at the end of the eighty-day period, the parties still have not resolved the dispute, the injunction expires—the string runs out. Unless the parties voluntarily agree to continue negotiation there will either be a strike or Congress will have to be asked hastily to enact ad hoc legislation proscribing any work stoppage. In its twenty-four year history, these Taft-Hartley emergency disputes provisions have been invoked twenty-nine times. In four instances, the disputes were settled before an injunction was issued. With respect to the remaining twenty-five disputes, thirteen were settled within the eighty-day cooling-off period and twelve were settled afterward.

Of those settled after the expiration of the cooling-off period, five of the twelve were settled without resort to a strike while seven were settled after strikes of varying duration. Of the seven disputes involving strikes, six occurred in the longshore and one in the maritime industries. Among these were a three-month shutdown of Pacific Coast shipping and several partial and total shutdowns of East Coast ports whose duration ranged from ten days to three months.

It may be concluded from this brief statistical history that the Taft-Hartley emergency disputes provisions warrant high marks for its successes. With the exception of longshore and maritime industries, it can be credited with preventing many potential and actual work stoppages some of which could have had a deleterious effect on the health and safety of the country.

Therefore it is not our position that the framework provided by the Taft-Hartley Act for encouraging collective bargaining has collapsed or has been unresponsive to the public interest. Rather, we believe that this framework can serve as a basis upon which to build a more effective and responsive structure for the transportation industry.

Let use now turn to the other side of the ledger and review our historical experience with the Railway Labor Act. As you know, the Railway Labor Act is the older of the two statutes and provides emergency procedures for work stoppages in the railroad and airline industries. When a railroad or airline and its employee bargaining representative are unable to resolve their differences in negotiations, the National Mediation Board is empowered to enter the bargaining on its own initiative, and work to assist the parties. If unsuccessful the Board is required to proffer voluntary arbitration to the parties. If either refuses, the Board issues a written notice that its mediation efforts have failed and withdraws from the case. For the next thirty days, the parties may neither strike nor lockout.

Should the National Mediation Board decide that a strike or lockout threatens major disruption to essential transportation services nationally or in any section of the country, it may so inform the President. The President may in his discretion appoint an Emergency Board to study the conditions surrounding the dispute, ascertain the positions of both parties and make recommendations for settlement. A strike or lockout is proscribed for up to thirty days while the Emergency Board studies the dispute and for an additional 30 days following its report. If at the expiration of this period no settlement has occurred, then the options available to the President are narrowed to requesting special legislation from Congress or letting a work stoppage occur.

How well have these procedures encouraged collective bargaining and dispute-settlement during the forty-five year history of the Railway Labor Act?

It should be noted at the outset that there have been only three nationwide rail strikes, each lasting but a few days and only one major airline strike lasting forty-three days.

But beneath this statistical tranquility lies a history of deadlock and discord, replete with Presidential seizures, evermore emergency legislation by the Congress, and the expenditure of uncounted hours and manpower resources in efforts to resolve these disputes and protect the public interest.

The history of the Act reveals that its machinery has failed time and time again. Only strong individually applied measures by the Chief Executive and Congress have averted major rail disruptions.

In 1943, President Roosevelt seized the railroads and arbitrated a dispute that the machinery of the Act had failed to settle. In 1946, President Truman seized the railroads and a strike still occurred. In that dispute, President Truman even asked Congress for the authority to draft the strikers.

In both 1948 and 1950, seizures and injunctions were again employed to avert a nationwide rail strike.

More recently the Railway Labor Act has been buffeted by some of the most tumultuous labor disputes in its history. In 1967, the wage dispute between six shop craft unions and most of the major rail lines forced Congress to act no less than three times to avert a nationwide rail strike. The "Firemen Manning" dispute first came to Congress in 1963 at which time a Joint Resolution requiring arbitration of the dispute seemed to settle the matter. Since that time, however, the issue has been reopened in bargaining and has resulted in litigation; the basic dispute remains unsettled and is subject to strike action at any time.

Congress acted again to legislate a settlement, without strike, in the Shop Craft negotiations of 1970. Again in December of 1970, Congress halted a nationwide strike involving three nonoperating unions and the United Transportation Union. The dispute involving the UTU is now subject to strike action. In the Signalmen's dispute of a few weeks ago, Congress was called upon to act to avert a nationwide strike, at least until October, 1971.

Over the history of this Act, we can actually point to 190 emergency boards being created to deal with transportation crises; this is an average of more than four per year.

Thus, while only a few major rail strikes have occurred during the history of the Railway Labor Act, the national trauma which accompanies each such crisis brings with it economic disruption, bitterness, and public disenchantment with the collective bargaining system. We have seen this especially in the last two years, where one threatened shutdown has followed another and where the governmental processes could respond only through another and where the governmental processes could respond only through last-minute efforts to stave off disaster. This activity clearly shows that our nation cannot sustain a nationwide disruption of essential service and therefore has effectively removed from labor one of its most powerful economic weapons, the national strike.

We must develop a better system for dealing with labor relations problems in the transportation industry. I think S. 560, the Emergency Public Interest Protection Act, is a good bill and can do the job. I would like this morning to discuss this bill with you—the philosophy which shaped its provisions and why we feel it is superior to other alternatives.

In developing this proposal, there were essentially two routes open to us: a procedure aimed at terminating emergency work stoppages once they have begun or the development of a proposal, the primary emphasis of which is to encourage settlement without such a stoppage but providing the means for terminating emergencies in the event that they do occur. In our judgment the latter approach is more sound and is consistent with the two objectives stressed by the President in submitting this proposal to the 91st Congress.

The first is that the health and safety of the nation must be protected against damaging widespread stoppages.

The second is that collective bargaining should be as free as possible from Government interference and that any legislation should serve to enhance, rather than reduce, the incentives to such bargaining.

With these factors in mind, the emergency disputes provisions of the bill would build on the Taft-Hartley Act, supplying the President with three new options for all transportation industries which would be available at the end of the present Taft-Hartley procedures. The options are:

(1) extension of the cooling-off period;

(2) partial operation of the troubled industry; and

(3) a procedure of final-offer selection.

To create a new climate for collective bargaining, the bill would also substantially reform the procedures of the Railway Labor Act.

(a) It would require that collective bargaining agreements run for a specified term.

(b) It would substitute private grievance and arbitration procedures during the term of agreements and would abolish the National Railroad Adjustment Board.

(c) In place of the present emergency provisions, the procedures under the amended Taft-Hartley Act would apply, and the mediation function of the National Mediation Board would be transferred to the Federal Mediation and Conciliation Service.

In addition, the bill also eliminates the provision in the Railroad Unemployment Insurance Act which allows striking railway employees to secure unemployment compensation benefits and establishes a National Special Industries Commission to make a comprehensive study of industries subject to emergency disputes.

In determining what procedures would be desirable for dealing with emergency situations, it is our view that the mere availability of a carefully selected range of options will yield a degree of uncertainty as to the possibility and the type of governmental intervention, and will influence the disputants to bargain earnestly from the beginning of the dispute.

Thus, each option has been selected not only as an effective response to a specific type of situation, but also as one element in a total package of options, the purpose of which is to encourage the parties to bargain and, thus, to settle the dispute themselves short of emergency work stoppages.

The President would also have greater flexibility in dealing with emergency disputes; several alternatives would be available to him to tailor action to the needs of specific situations. Under the Administration's proposal, the President is only empowered to deal with disputes which threaten national health and safety, as in the present Taft-Hartley provisions. This is deemed more desirable in terms of furthering private bargaining than the present Railway Labor Act procedure which may be activated by a regional emergency.

In sum, the proposal establishes options which will deal effectively with emergencies so as to protect the Nation's health and safety and which, intrinsically and by reason of their multiplicity and form provide an incentive to collective bargaining.

Accordingly, when national health and safety is threatened, the President would

have the authority, subject to Congressional veto, to choose any one, but only one, of the following three options after the eighty-day cooling-off period has run its course.

First, he would be authorized to order an additional thirty-day cooling-off period in which no strike or lockout would be permitted. An extended cooling-off period might be used when it appeared that the parties were close to an agreement when time ran out on them. For instance, if settlement prospects were near and the circumstances were such that the parties were reluctant to agree voluntarily to an extension of time, this option could be selected. Also, there might be times when the President, electing neither partial operation nor final offer selection, would want to delay a work stoppage up to thirty days while Congress considered the matter.

Second, the President could appoint a Board to determine whether partial or selective operation of the troubled industry could be implemented. The Board would determine the scope of the partial operation which could be in effect for a period of not more than 180 days. Its task would be to determine by means of a hearing whether and under what conditions partial operation of the affected industry would be consistent with the provision of service minimally necessary to the national health and safety. Two conditions are imposed on partial operation. One is that the Board must believe that the economic pressure resulting from the partial shutdown would be sufficient to encourage the parties to resolve the dispute. The other is that partial operation must not place a greater economic burden on any party than would a complete shutdown. Before and during the period of partial operation, no change could be made in the terms and condition of employment, except by agreement of the parties or action of the Board. Where substantial bargaining is obviously necessary and the use of the traditional strike and lockout pressures would be beneficial to the furtherance of negotiations consistent with the national health and safety, such an option might well be selected.

Third, the President could select a procedure which provides for the empaneling of a Final Offer Selection Board whose task would be to determine by means of a hearing which final offer, submitted by a party to the dispute, shall comprise the collective bargaining agreement between the parties. Preliminary to this process, each party would be directed by the President to submit one or two final offers, as the parties wish, to the Secretary of Labor. Each final offer must amount to a complete labor contract, resolving all the issues in the dispute. After the submission of offers, there would occur a mandatory, five-day period of bargaining. If the dispute remains unresolved at the end of this period, the Board would determine which final offer is the most reasonable. Such offer, without alteration, would comprise the collective bargaining agreement of the parties.

The "final offer selection" alternative is one of the most innovative concepts in the labor law field. It would have the effect, when chosen by the President, of forcing the positions of the parties closer together since it requires a selection without modification of the most reasonable offer of a party.

The parties would be pushed toward the middle ground—the zone of disagreement would be narrowed—because the penalty imposed for a party's maintaining an extreme position would be the likelihood of rejection of its offer by the Panel. The presence of this option will encourage collective bargaining in the early stage of negotiation, thus providing greater possibility of an early settlement.

In selecting the options to place at the President's disposal, it was our goal to develop a range of alternatives which would encourage settlement of the dispute by the parties themselves. It is the purpose of our new statutory structure to limit government intervention in free collective bargaining to an absolute minimum consistent with the public interest.

This philosophy led to the formulation of the range of options that you find in the Administration's bill, and led to the rejection of certain other proposals.

For instance, compulsory arbitration is not included among the options because of the "position distancing" influence it exerts on the bargaining process. It is inconsistent with a philosophy of our options, that of encouraging collective bargaining, narrowing the issues and the zone of disagreement, and of limiting government intervention to a minimum. The threat of compulsory arbitration tends to maximize rather than minimize the differences between the parties since the general expectation is that the arbitrator tends to split the difference between the parties. Some observers have argued that if compulsory arbitration were mixed among other options, these effects would be somewhat diluted. However, in this sense "final offer selection" has the opposite effect from compulsory arbitration in that it has a tendency to narrow the issues and stimulate collective bargaining, and the inclusion of compulsory arbitration would clearly diminish the true value as a possible option.

Similarly, we decided against the inclusion of a so-called "seizure" provision. We foresee grave problems with any plan which provides for government takeover and operation of a part of the transportation industry during a crisis situation. The inherent difficulty is in designing a system of seizure that would encourage collective bargaining; that is, one which exerts sufficient pressure on both sides without advantaging one side or the other.

As a companion to the emergency disputes provision of the bill, and equally important, is the reform we propose for the Railway Labor Act.

The procedures of the Railway Labor Act which most obviously undermine, rather than strengthen, collective bargaining are the bargaining and emergency disputes provisions of the Act. Under the procedures of the Act, collective bargaining agreements are not required to have termination dates and are unchangeable by either side unless and until the procedures of the Act are fulfilled; that is, formal notice, conferences, mediation, and finally, release by the National Mediation Board. Until the Board determines that a settlement cannot be reached through mediation, the parties are barred from resorting to strike or lockout. Often these procedures result in "negotiation" for months or years, thus, unreasonably deferring employee wage and benefit increases and carrier operating changes. The result is hardening of positions, and inevitable delay, all with no discernible termination date to bargaining. The combination of these two factors makes effective bargaining increasingly difficult and helps explain the failure of the process and the ultimate reliance upon governmental action to resolve disputes.

What is needed are procedures that will serve to provide an incentive for real voluntary negotiation—and to assist the parties in resolving their disputes rather than serving as a steppingstone for further governmental intervention.

The Administration's bill would make major changes in these procedures. Specific contract termination dates would be required. Parties desiring a change in the contract would be required to serve written notice thereof at least prior to the expiration date of the contract. After expiration of the contract, the parties would be free to resort to self-help, and if that action threatened national health and safety, the emergency provisions of Taft-Hartley, as amended by this bill, would be available.

In addition, and of particular importance in establishing an effective collective bargaining atmosphere, our proposal seeks to equalize the economic pressures of any strike, and, thus increase the incentive to agree in order to avoid a strike. The bill, therefore, eliminates the provisions of the Railroad Unemployment Insurance Act which allows striking railroad employees to secure unemployment insurance benefits.

Thus, our proposal eliminates unreasonable delay and creates the salutory pressure of a meaningful deadline, all in furtherance of the collective bargaining process.

Presently, grievances arising under the provisions of existing collective bargaining agreements are handled in the railroad industry by the National Railroad Adjustment Board, a government-supported board. Our proposal would eliminate the Board over a two-year period and replace it with a private grievance and arbitration mechanism, not only to eliminate government intervention but also to reduce the strains on the bargaining relationships between labor and management occasioned by the Board's case backlog which is estimated to exceed 3,000 cases.

If the provisions of this bill are to be effectively utilized and improved, it is important to understand why these labor crises affecting the national health and safety tend to be concentrated in certain industries. It is essential that we establish a better framework of information on this problem.

For this reason, we have proposed in our bill that a Special Industries Commission be established to study and make recommendations to the President as to the best ways to remedy the weaknesses of collective bargaining in industries marked by critical labor relations problems.

In summary, we believe that the most effective approach to this problem is one which will support and strengthen free collective bargaining in the nation, that will provide for a minimum of government interference with that process and yet provide a range of measures to protect the Nation's health and safety. We consider this a matter of the highest priority and urge prompt and favorable action on S. 560.

As the President reiterated in his most recent Message to Congress recommending the enactment of the Emergency Public Interest Protection Act:

I urge that this time we not wait for the next emergency, but rather join together in acting upon it now.

STATEMENT OF JOHN A. VOLPE, SECRETARY OF TRANSPORTATION, BEFORE THE SUBCOMMITTEE ON LABOR, COMMITTEE ON LABOR AND PUBLIC WELFARE, U.S. SENATE, REGARDING THE EMERGENCY PUBLIC INTEREST PROTECTION ACT OF 1971, THURSDAY, SEPTEMBER 16, 1971

I appreciate the opportunity to be here today to testify on S. 560, the Emergency Public Interest Protection Act of 1971.

In the weeks preceding Congress's recess last month, this country was experiencing a series of selective railroad strikes. While that dispute has been settled, the basic problem of labor relations in the transportation industry still remains.

As Secretary Hodgson testified before this Committee, to preserve the Railway Labor Act will only serve to enmesh us in further labor disputes in this troubled industry. Let me only remind the Committee that less than two weeks from today the congressionally imposed cooling-off period for the signalmen's strike ends. As of today, it is uncertain whether we must eventually return to the Congress to ask for emergency relief.

Let me tell you why the Administration believes we must act, and act now. As you know, labor relations within the railroad and airline industries are governed by the Railway Labor Act of 1926. Since the passage of

the Act, 190 emergency boards have been convened to deal with transportation crises. During just the last two years, Congress has had to act three times following the failure of efforts under the Railway Labor Act to bring about final resolution of work disputes.

In comparison, the emergency provisions of the Taft-Hartley Act have only been needed 29 times since its enactment in 1947. Further, on only 7 of these 29 occasions did a strike actually resume after the cooling-off period.

Faced with the failure of the Railway Labor Act and the relative success of the Taft-Hartley Act, the course of this Administration was clear. No longer should the commerce of this country be allowed to grind to a halt. Therefore, last year the President proposed innovative legislation dealing with emergency disputes in the transportation industry. Our proposed measure is based on Taft-Hartley, but reaches beyond it to incorporate new techniques to enhance collective bargaining. It would place under the emergency disputes provisions of that one statute all transportation industries.

The bill covers three major areas where we have found shortcomings under the Railway Labor Act.

The first deals with bargaining and arbitration procedures. Collective bargaining agreements under the Railway Labor Act are not required to have termination dates and call for a complex series of negotiations before they can be altered. The Administration's proposal would require specific contract termination dates and written notice of desired contractual changes at least 60 days prior to that date. After expiration, the parties could resort to self help until an emergency situation imperiled the national health or safety.

Likewise, under the Railway Labor Act a National Railroad Adjustment Board arbitrates grievances. This process is so slow and inefficient that the Board's backload is currently more than 3,000 cases. The Administration seeks, therefore, to phase out the Board in favor of a private grievance and arbitration mechanism.

The second element of the legislation is built on the successful emergency procedures of the Taft-Hartley Act. Under Taft-Hartley, and under our proposed legislation, when a threatened or actual strike or lockout imperils the national health or safety, the President may appoint a board of inquiry to examine the issues and submit a report to the President. After receiving this report, the President may seek an 80-day injunction against a strike or lockout. As I mentioned, this cooling-off mechanism has been followed by a resumption of a strike only seven times.

Lastly, while Taft-Hartley has been quite successful, there have been instances when a further step was needed. We have remedied this defect with the addition of three new Presidential options at the end of the 80-day cooling-off period. One would be an additional 30-day cooling-off period. This option would undoubtedly be employed in situations where the parties have already reached an agreement in principle and only need a short time more to negotiate final details. A second Presidential option would be to appoint a partial operation panel which would designate certain essential goods and require them to be moved. Partial operation could be in effect for as long as 180 days. Finally, the President could exercise a third option called the "final offer" option. If he chose this latter option, each party would be required to submit a final offer and an alternative final offer. These final offers would be submitted to a board which would choose the most reasonable. The final offer procedure, one of the most innovative new ideas in labor relations, is directed toward driving the parties together during collective bargaining. Faced with having a neutral panel choose in its entirety the most reasonable offer of the four presented to them, each side would be encouraged to put forward the most reasonable offer. The legislation provides for a 5-day bargaining period to follow the submission of the final offers so that the parties, realizing how close they might be, would voluntarily settle without the need for outside action.

The President, in recommending the enactment of this measure, said on February 3 of this year:

"The urgency of this matter should require no new emphasis by anyone; the critical nature of it should be clear to all."

* * * * *

"I believe we must face up to this problem, and face up to it now, before events overtake us, and while reasoned consideration is still possible."

* * * * *

"The legislation I propose today would establish a framework for settling emergency transportation disputes in a reasonable and orderly fashion, fair to the parties and without the shattering impact on the public of a transportation shutdown."

I have, Mr. Chairman and Members of the Committee, been Secretary of Transportation now for almost three years. I have seen the shattering impact on the public which the President spoke of, and I have experienced the frenzied activity needed to resolve transportation strikes, even on a temporary basis. During just the last 19 months this nation has been faced on four separate occasions with the dilemma of potential nationwide railroad strikes. In the spring of 1970, Congress averted a strike by legislative action, first by postponing the strike for 37 days and then by enacting legislation that imposed a settlement. We were less fortunate the other three times.

In December of 1970 and this past May, the country experienced two short-lived strikes which, but for the speedy action of the Administration and the Congress, would have crippled the nation. This summer, as I have said, we experienced a series of selective strikes whose cumulative effect fell just short of a national emergency. It is clear that any such disruption would have a serious impact on our efforts to stabilize and improve the economy. To end the strike in May, Mr. Chairman, the Administration proposed and the Congress enacted emergency legislation. If the effect of the selective strikes earlier this summer had become more serious, or moved into a nation-wide shutdown, it is clear we would have had to come to the Congress again.

Both the Congress and the Administration recognize that permanent legislation is necessary to prevent the continual recurrence of such stopgap legislative efforts. Our proposal is meant to do just that. We cannot continue to ask the Congress to decide these issues on an *ad hoc* basis. That is why we are now proposing a mechanism for resolving disputes—one which allows labor and management to bargain out their differences without economically crippling the nation. This legislation is meant to tell labor and management that they can have flexibility in their bargaining, but at the end there must be a final settlement. We are not telling them what the terms must be—we are merely saying that they must reach an agreement.

I should like to make one thing clear. This is not a pro-management bill, nor is this a pro-labor bill. It is a bill, as its title states, in the public interest. It is a bill which is meant only to protect the people of this nation from becoming the innocent victims of a labor-management dispute within a single industry.

I have been on both sides of the labor/management fence. As an owner of my construction business, I was management. I was privileged to serve for two years as Massachusetts chairman of the Labor-Management Relations Committee of the Association of General Contractors of America and for seven years as a member of the Association's National Labor-Management Relations Committee. As the Committee knows, however, I started as a plasterer's apprentice, and, in fact, I still hold an honorary lifetime membership in the International Plasterers Union. As a result, I feel that I understand many of the problems of labor/management negotiations and I am confident that this bill enhances the incentives for negotiation and the prospects for voluntary settlement.

The question has been raised as to why we have singled out the transportation industry for special legislation. There is no other industry where the effects of work stoppages have such a devastating effect on our national welfare. Simply stated, the transportation industry is the lifeline of our nation's economy. Each mode plays its important part—be it trucking, airlines, railroads, or maritime—each catering to the kind of business it can most efficiently and effectively serve. The other side of the coin, however, is that if one mode is shut down, the other modes cannot easily take up the slack. For example, the transportation of steel or automobiles cannot readily be shifted to other modes on short notice if the railroads go on strike. Likewise, there is no modal substitute for rapid coast-to-coast passenger transport by airplane. It appears that one of the prices we pay for the specialization in our transportation industry is that we are dependent upon it functioning as a whole. The shutdown of one of our transportation modes, or a substantial portion of any mode, unbalances the entire system, and has an impact upon the national health or safety. The severity of this situation calls for special remedy.

This, then, is the problem. We are faced with an industry which does not manufacture a product, but makes possible the manufacturing of almost all products. Transportation is the link which binds our many material sources to our industries; it is the link which binds our industry to the consumer. In short, it makes possible the free flow of goods and services which is the keystone of our economic system.

The public interest precludes our allowing that process to flounder, yet our commitment to the essential fairness of the collective bargaining system precludes our altering it any more than is absolutely necessary. What the Administration proposes, therefore, merely enlarges the options open to the President to facilitate and encourage fruitful collective bargaining.

Mr. Chairman, the President has reiterated his recommendation that the Emergency Public Interest Act be enacted. The Administration recognizes the need for this legislation. We cannot continue to live from crisis to crisis. We all know that hindsight is better than foresight, and we must take advantage of our hindsight to plan for the future. This is what we as a government owe to the people. We strongly urge its enactment.

Thank you very much. I will be pleased to answer any questions the Committee may have.

STATEMENT OF PAUL R. CHAGNON, DEPUTY DIRECTOR OF INLAND TRAFFIC, MILITARY TRAFFIC MANAGEMENT AND TERMINAL SERVICE, ON S. 560, S. 594, S. 832, S. 1093, AND S. 1934, 92D CONGRESS BEFORE THE COMMITTEE ON LABOR AND PUBLIC WELFARE, U.S. SENATE

My name is Paul R. Chagnon. I am Deputy Director of Inland Traffic for the Military Traffic Management and Terminal Service (MTMTS). MTMTS is a single manager agency operating under the Secretary of the Army performing commercial traffic management functions for all elements of the Department of Defense. The functions of logistics and traffic management are essentially divided among the shippers, the Army,

Navy, Air Force, and Marine Corps, who decide what (or who) is to be transported, where the transport is to be furnished to, and when it must arrive. MTMTS provides the traffic management advice as to how the commercial transportation service is procured and used. Our scope of responsibility is limited to the continental United States, except for household goods which is a worldwide responsibility.

My personal qualifications lay in the area of domestic freight traffic management; however, I have developed data in the fields of passenger traffic and export and ocean terminal operations for the committee's use. Accordingly, I will attempt to answer or develop the answers for whatever questions the committee may have in these areas.

Since 1967, we have experienced eight rail strikes, one major motor carrier strike, 11 airline strikes, 5 longshoreman strikes, and 4 ocean strikes that have required action on our part to insure a minimal impact on DOD traffic. It is recognized that these are not complete figures as some local work stoppages never come to our attention. Those that did come to our attention did not create a substantial impact. This was due to diversions to other means of transport, cooperation of labor and management to handle defense traffic, and normally only brief work stoppages. The length of the strike is, however, the most critical factor.

The ability of alternate modes to satisfy emergency requirements is limited. An example of motor carriers' ability to supplant rail carriage of ammunition demonstrates this. The capacity of a truck is normally limited to 40,000 pounds of ammunition. Up to 120,000 pounds can be loaded in a rail car. This means we would need as many as three times the number of trucks as rail cars. Between 150 and 200 rail carloads are necessary for a shipload of ammunition. Therefore, some 450 to 600 trucks would be required for a ship. This creates an extreme demand for trucks which even if obtainable would severely clog up the ammunition plans and ammunition ocean terminals which are most efficiently operated with rail service.

On the other hand, rail service cannot satisfy some needs we have for trucks. This is best demonstrated in the supply of perishable foods to the consuming posts, camps and stations. Motor carriers provide a scheduled, door-to-door delivery of mixed frozen and chilled perishables which is designed to satisfy the individual consumption requirements and refrigerated storage capability of the post involved. Railroads are not normally able to provide this "retail" type service because of facilities problems. While ultimate delivery from rail facility to user probably could be arranged it is inefficient and more expensive.

The question of internal DOD movement capability naturally rises in this connection. We have in existence a military owned vehicle plan which provides for the use of vehicles assigned to units throughout the United States. We believe that only the barest essential cargo could be accommodated by these vehicles and that at the sacrifice of other essential activities. Our estimate that was included in the report required of the DOD in PL 92–17 was that possibly ten percent of defense rail traffic could be moved under the military owned vehicle plan if all other training operations were curtailed.

The second mitigating factor in easing the impact of strikes on DOD is labor-management cooperation. Our experience has been that whenever it was possible both labor and management have attempted to exempt military traffic from strikes. This has been most successful where our traffic could be isolated as in longshoremen strikes where special piers could be set aside or in ocean strikes where full shiploads could be marshaled. In these cases labor and management have agreed to conduct special operations in order to continue the flow of military supplies.

Motor carrier service has been continued during strikes in special cases where clearance procedures have been established through local organizations. These procedures have been hampered by reports of violence and consequent reluctance of drivers to operate even though cleared by union officials.

During strikes railroads normally attempt to handle defense traffic utilizing supervisory personnel. However, due to the scarcity of operationally qualified supervisors, operations are possible only for a short period. Here too, unions have agreed to handle defense traffic in limited fashion where it could be isolated, such as switching into ammunition terminals.

During a recent airline strike, DOD found itself with more than normal charter service as labor and management agreed to continue charter operations for the military. Military aircraft have a one-time lift capability of over 100,000 passengers within CONUS if committed solely to passenger movements. This is considerably more than the daily average of 7,000 military passengers traveling via commerical air. The use of all or part of this military lift, when commercial air operations have stopped, is contingent on other military priorities.

The third liimting factor of impact is duration of the strike. The following is an excerpt from the DOD report pursuant to PL 92–17 concerning the 17 May rail strike:

"While a short duration strike of one week or less would impact the Defense Department very little, a prolonged strike lasting beyond seven to ten days would begin to seriously affect the Department as the strike duration increased. Primary impact would be evidenced by a shutting-down of TNT production plants. This impact would be compounded with shortages of aviation fuel, coal and fuel oil as a rail strike approached 30 to 45 days. Major projects and/or programs susceptible to disruption, delay and/or increased cost in a prolonged strike would include weapon and vehicle production and deployment; naval fleet support, defense housing, training, ecological undertakings and construction within the United States and overseas."

The final area of impact which I believe will interest the committee is the interruption in movement of sensitive materials. When materials such as firearms and ammunition of certain types are caught in transit by a strike they are highly vulnerable to theft. As the committee is aware such losses have been the subject of interest at all levels of Government and are viewed with great concern. We devote considerable effort to arrange following reports of such movements when a strike is forthcoming. If such shipments are frustrated action is taken to provide protection either through local law enforcement bodies or through military guards. Thus far, we know of no losses of this material due to strikes. However, the possibility of loss is at its highest level when shipments are frustrated at points with unpredictable protective capability.

The Department of Defense favors the "Emergency Public Interest Protection Act" which was proposed to the Congress by the President and introduced as S. 560 because it treats disputes which arise throughout the entire transportation industry, not just railroad transportation. This bill, in our opinion, provides the necessary framework for dealing with national emergency disputes for the entire transportation industry, which includes railroads, airlines, longshoremen, and trucks. S. 560 is therefore the most responsive to the requirements of the Department of Defense.

I will attempt to answer questions in these areas the committee desires further information on. Also available for the committee's use is statistical data from the MTMTS Progress Report for the Fourth Quarter FY 71, which contains comprehensive information on defense traffic.

QUORUM CALL

Mr. BYRD of West Virginia. Mr. President, I suggest the absence of a quorum.

The PRESIDING OFFICER. The clerk will call the roll.

The legislative clerk proceeded to call the roll.

Mr. BYRD of West Virginia. Mr. President, I ask unanimous consent that the order for the quorum call be rescinded.

The PRESIDING OFFICER. Without objection, it is so ordered.

CONCLUSION OF MORNING BUSINESS

The PRESIDING OFFICER. Is there further morning business? If not, morning business is concluded.

MILITARY PROCUREMENT AUTHORIZATIONS, 1972

The PRESIDING OFFICER (Mr. BYRD of Virginia). Under the previous order, the Chair lays before the Senate the unfinished business, which the clerk will state.

The legislative clerk read as follows:

A bill (H.R. 8687) to authorize appropriations during the fiscal year 1972 for procurement of aircraft, missiles, naval vessels, tracked combat vehicles, torpedoes, and other weapons, and research, development, test, and evaluation for the Armed Forces, and to prescribe the authorized personnel strength of the Selected Reserve of each Reserve component of the Armed Forces, and for other purposes.

AMENDMENT NO. 441

The PRESIDING OFFICER. The question is on agreeing to the amendment (No. 441) of the Senator from Wisconsin (Mr. NELSON), on which there is a time limitation of 2 hours, to be equally divided.

Mr. BYRD of West Virginia. Mr. President, I suggest the absence of a quorum. I ask unanimous consent that the time for the quorum call be charged equally against both sides.

The PRESIDING OFFICER. Without objection, it is so ordered. The clerk will call the roll.

The legislative clerk proceeded to call the roll.

Mr. NELSON. Mr. President, I ask unanimous consent that the order for the quorum call be rescinded.

The PRESIDING OFFICER. Without objection, it is so ordered.

Who yields time?

Mr. NELSON. I yield myself 15 minutes.

Mr. President, there is an error in the amendment in the computation of the total figures. That error is on line 8. The figure in the amendment reads "$2,374,829,000." The figure should read "$2,374,804,000." It is a computation error of $25,000. I ask unanimous consent to have the amendment corrected.

The PRESIDING OFFICER. The Chair asks for a clarification. Would the Senator from Wisconsin state the line in the printed version?

Mr. NELSON. It is in line 9.

The PRESIDING OFFICER. Would the Senator use the printed version and indicate the page and line?

Mr. NELSON. In the printed version it is line 2, and the figure in the amendment is "$2,374,829,000." The figure should read "$2,374,804,000."

The PRESIDING OFFICER. Without objection, the modification will be made.

PRIVILEGE OF THE FLOOR

Mr. NELSON. Mr. President, I ask unanimous consent that two members of my staff, Mr. Ron Way and Mr. David Osterhout, have the privilege of the floor during the course of the debate.

The PRESIDING OFFICER. Without objection, it is so ordered.

Mr. NELSON. Mr. President, amendment No. 441 is the pending business. Is that correct?

The PRESIDING OFFICER. Amendment No. 441 is the pending business.

Mr. NELSON. Mr. President, the amendment provides that:

Not more than $3,492,000 may be used to carry out research and development in connection with the Navy's Project Sanguine, of which amount $150,000 shall be available only for carrying out an environmental compatability program in connection with the Sanguine project, and of which amount $300,000 shall be available only for biological and ecological effects research in connection with the Sanguine project.

And, further:

None of the funds authorized to be appropriated by this Act may be used to carry out any research and development work in connection with a deep underground system for the Sanguine project.

Mr. President, it will be recalled that the Senate last Wednesday voted on another amendment to H.R. 8687 dealing with Project Sanguine. That amendment, which lost by a vote of 45 to 35, would have withheld all research and development funds for the Sanguine system until a final environmental impact statement is completed as required by the National Environmental Policy Act and until a technical review, to determine whether this communications project will work, is completed by the National Academy of Sciences and the National Academy of Engineering.

Although the amendment before us today also deals with Project Sanguine, it is substantially different from the previous amendment.

This amendment will not in any way interrupt the ongoing research and development program by the Navy. Rather, it will simply hold the level of spending on Project Sanguine to the level originally requested by the Navy when the military budget was submitted to Congress in mid-January.

As I explained on the Senate floor last Wednesday, Project Sanguine has been in the research and development stage since 1958. Since then, nearly $50 million have been spent on this project.

When the Navy presented its Sanguine budget to the Congress last January, it included a line item for what it called deep underground research. The Navy explained that it was going to study the feasibility of burying this very large antenna in a network of tunnels several thousand feet underground. At least part of the work would consist of drilling core holes in the Laurentian shield bedrock to determine the feasibility of a deep underground system, presumably as a substitute for the shallower system.

To conduct this deep underground research, the Navy requested a total of $2,140,000 out of the total budget request of $5,557,000. The remainder of the money in the budget, $3,417,000, is to be spent on continuing research and development on the shallow, 6-feet deep system and the environmental effects of installing and operating that shallow system.

When the Navy appeared before the Senate Armed Services Committee on April 5 and the Appropriations Committee on April 20, the Department's Assistant Secretary for Research and Development, Dr. Robert Frosch, outlined the overall budget including the $2.14 million for the deep underground research.

At about the same time that this testimony was being heard, a team of scientists at the University of Wisconsin was just completing a major task of reviewing the technology for Project Sanguine. Independent of this study, another scientist at the University of Kansas at Lawrence, Dr. Albert Biggs, a widely recognized antenna expert, was engaged in a similar study.

Both reports concluded that Project Sanguine would not work with the power input levels announced by the Navy. The Wisconsin report, by the Wisconsin Committee for Environmental Information, said it would take so long to send messages via Project Sanguine that the signal could easily be jammed by another country.

I considered these reports to be serious enough to warrant an independent technical review to determine whether, in fact, this project would work. I asked the Navy to seek such an independent evaluation. And the Navy agreed. That evaluation will be done by the National Academy of Sciences and the National Academy of Engineers. They have just begun or are about to begin their current studies.

Dr. Frosch notified me on May 14 that he had requested the National Academy of Sciences and the National Academy of Engineering to conduct a technical review of Project Sanguine. This technical review will seek to determine whether the shallow system—buried 6 feet in the ground—is in fact a workable system. Until that question is settled it does not make any sense to spend money exploring the feasibility of a deep underground system buried possibly a mile deep. Apparently the Navy now agrees on this point and has abandoned its request for this purpose, but has requested that this $2 million now be added on top of its budget for research on the shallow system. This request has not been justified before any committee of either House and should be deleted from the budget.

On July 31, I wrote a letter to the chairman of the Senate Appropriations Committee, Mr. ELLENDER, and outlined my concern about approving the Sanguine budget while the very serious, unresolved technical problems were scheduled to be reviewed by the National Academy of Sciences and the National Academy of Engineering.

During the week of September 5, I decided to offer an amendment to the military procurement authorization bill to withhold funding for development of Project Sanguine until both the environmental impact statement and the technical review were completed. A public announcement outlining the essence of this amendment, and its rationale, was made that same week.

On September 10, the Navy hand-delivered a message to my office that it was all but abandoning the deep underground research, because of unexplained technical problems associated with the effort. The $2 million requested for this research no longer was needed, the Navy said.

However, rather than deleting the $2 million from the budget, the Navy simply transferred that money to the $3.5 million for research and development of the shallow Sanguine system.

The military budget was submitted to Congress in mid-January. This budget contained the appropriation for Project Sanguine, including the $2 million research of a deep underground system.

The Sanguine budget, including the deep underground research, was discussed on April 5 before the Senate Armed Services Committee and again on April 20 before the Senate Appropriations Committee.

Similar hearings on this same military bill, including the same budget for Project Sanguine, were held on the House side.

On June 17, the military budget was approved by the House. This budget contained the line-by-line budget for Sanguine that was outlined before the several committees in both the Senate and House.

Then on September 10, nearly 5 months after the Navy testified on Project Sanguine before the two Senate committees, and nearly 3 months after the military bill had been approved by the House, the Navy suddenly revised its budget for Project Sanguine by transferring the $2 million for deep underground research and adding that amount to development of the shallow Sanguine system.

By this time, the military procurement bill already had been reported out of the Armed Services Committee and sent to the Senate for action.

In effect, the Navy has substantially increased the research and development effort for the shallow Sanguine system without, bothering to present Congress with any justification whatsoever for it, on top of their original request which is almost 75 percent increase in research and development on the shallow system, without one word of justification before any committee of either House.

This amendment would not in any way interrupt research and development for Project Sanguine, the shallow system. All it would do is hold spending on this proj-

ect to the same level that was requested by the Navy itself, and require the Navy to give back to the public treasury the $2 million they have publicly said they do not need, but would like to hold on to in order to almost double the research and development budget on the shallow system. This amendment simply removes from the budget the $2 million that the Navy itself has said that it no longer needs.

Certainly, the Navy is capable of planning ahead for a single year on a research and development project that is as advanced as is Project Sanguine.

In this case, the Navy has said that it needs $3.5 million for research and development of the shallow Project Sanguine for fiscal year 1972. That is what they told the appropriate committees in the House and Senate. That is the budget they ought to be held to and they should not be able to come in here and almost double their budget without one word of justification for it.

Mr. President, I ask unanimous consent that a detailed description of the Sanguine budget be inserted at this point in the RECORD. This description includes the Navy's original request for research and development of Project Sanguine, the revised requested announced less than 3 weeks ago on September 10, and the line-by-line dollar figures taken from these two requests and incorporated into the pending amendment.

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

PROJECT SANGUINE BUDGET FOR FISCAL YEAR 1972

[In thousands]

Item	A Original request	B Revised request	C Figures for Senator Nelson's amendment
1. Program management, system engineering support, and communication design consultation	$1,110	$1,485	$1,110
2. Receiving antenna and receiver subsystem design	705	1,260	705
3. Interference mitigation program environmental compatibility program, staff support	350	467	350
4. Facility design and site research:			
(a) Surface survivable system	427	798	427
(b) Deep underground system	2,140	200	000
5. Test facility operation	325	300	300
6. Biological/ecological effects research	200	300	300
7. ELF propagation/ atmospheric noise measurements	300	747	300
Total	5,557	5,557	3,492

NOTES

Column A.—The budget request for Sanguine outlined by the Navy to Senate Appropriations and Armed Services Committees, and the budget approved by the House on June 17.

Column B.—The Navy's revised budget, announced on September 10.

Column C.—Senator Nelson's amendment would take the Navy's lowest budget figures for each line, except it would strike all money for deep underground research (line 4 b). Also, it would take the highest figure for environmental studies (line 6) because it is generally agreed that much more effort in this area is needed.

Therefore, the Nelson amendment would allow $3,492,000 for Sanguine development, a reduction of $2,065,000 from the budget request of $5,557,000.

Mr. NELSON. Mr. President, in brief explanation, this amendment takes the lowest budget figures for each line of the two budget requests for Sanguine submitted by the Navy—with two exceptions.

One is in the item for deep underground research. The Navy has said that there are certain technical problems associated with deep underground placement of the Sanguine antennas, and accelerated research in this area is not needed. However, the Navy has left $200,000 in the deep underground research area. My amendment would strike all funds for this effort.

The second is in the area of environmental effects research. Here, both the Navy and independent scientists agree that much work has to be done to determine the effects of installing and operating the Sanguine system. In its original budget the Navy requested $350,000 to conduct the necessary environmental effects research. In the revised budget of September 10, the Navy requested an additional $100,000 for this item.

My amendment would accept the highest request, the $100,000 additional, for environmental research.

Therefore, the pending amendment would allow $3,492,000 for continued research on Project Sanguine and eliminate the $2 million for deep underground exploration which the Navy itself concedes it does not need.

Mr. President, how much time do I have remaining?

The PRESIDING OFFICER. The Senator from Wisconsin has 38 minutes remaining.

Mr. NELSON. Mr. President, how did we get down to 38 minutes? I yielded myself 15 minutes. Was the quorum call charged equally to both sides?

The PRESIDING OFFICER. The Senator is correct.

Mr. NELSON. Mr. President, I yield the floor.

Mr. STENNIS. Mr. President, how much time do I have remaining?

The PRESIDING OFFICER. The Senator has 54 minutes remaining.

Mr. STENNIS. Mr. President, I shall be quite brief. I am going to ask the Senator from Texas, who is well prepared in this field and on this amendment, to proceed next.

Let me say to the membership of the Senate that this is an important matter. Frankly, however, it is rather difficult to explain before a body of 100 Members.

This is in the field of research and development. I just want to point out that in the Department of Defense submission of the budget this year, there were 475 separate programs representing this vast research and development program and something like 2,000 projects. Those 2,000 projects break down into 30,000 tasks and work units.

The Research and Development Subcommittee of the Senate Armed Services Committee has actually plowed through all of these pages and all of these items, either the members of the subcommittee or the very competent staff members of the committee. We are able to give answers and analyze these items. We know something about all of them.

This involves the Sanguine Project which is one out of 30,000 tasks that comprise the great volume of individual efforts. It is necessary to have this vast research and development program, of course. This amendment affects only $2.14 million of the $5.557 million requested for Sanguine.

This Sanguine project relates, in my terms, to fleet communications, communications between the shore and strategic nuclear submarines; and trying to improve those communications and make them less vulnerable to detection and destruction. It is essentially research. It is almost what we might call basic research in this field.

There could not be anything more important than communications at sea between the shore and submarines, one with another. Under our continuing resolution, $1 million of the $2.140 million has already been obligated.

That is just the practical side of the matter.

Mr. President, I am glad to yield to the Senator from Texas such time as he might desire. How much time would the distinguished Senator from Texas like?

Mr. BENTSEN. Mr. President, I ask the Senator from Mississippi to yield me 20 minutes.

Mr. STENNIS. Mr. President, I yield 20 minutes to the Senator from Texas. If he desires 25 minutes, I will yield him 25 minutes.

Mr. BENTSEN. Mr. President, the expression "beating a dead horse" comes to mind when Project Sanguine again is the subject of a restrictive amendment proposed by my distinguished colleague from Wisconsin. I find it difficult to understand why a program, which the Navy considers to be of such importance, because it promises to provide an emergency communications link with our strategic nuclear submarine force, is singled out for such treatment. This is even more perplexing, because the program is only in the concept formulation or study stage at a relatively modest cost and is restricted this year to answering the questions of technical significance.

The Senator's concern for the environmental implications is well understoood and appreciated.

He has made his position abundantly clear during the debate on his previous Sanguine amendment No. 426, which, incidentally, was defeated on September 22, 1971. By its action in defeating that amendment, the Senate agreed with the fact that the Navy is complying with the requirements of the National Environmental Policy Act of 1969 and that the question of technical feasibility was being appropriately covered by a technical feasibility review being conducted jointly by the National Academy of Sciences and the National Academy of Engineering. This review is expected to be completed by the end of October 1971. As I stated during the debate on the previous amendment, the Navy advises that it is confident that the review will confirm the technical feasibility of Project Sanguine. The $5.5 million requested in fiscal 1972 will support the completion of the concept formulation phase of this program and will provide for nine separate environmental studies which will

once and for all put to rest the concern that there may be hazards involved as a result of this program if it proceeds into development. These funds also provide for supporting research efforts which are incidental to completion of this phase of the program.

The proposed amendment would reduce the amount requested for Project Sanguine for fiscal 1972 by $2,065,000, from $5,557,000 to $3,492,000. It also provides that of this reduced amount, $150,000 will be used for an environmental compatibility program and $300,000 will be used only for biological and ecological effects research. It also prohibits the use of funds for research and development in connection with a deep underground system for the Sanguine project.

The President recently has approved a program of $100 million to support a concerted national effort to overcome cancer. The need for this is widely recognized and accepted. There is no assurance that the expenditure of these funds will provide the solution. Still, it is only by exerting these efforts and working on numerous alternatives that we can hope to find the tenuous answer to this dread disease. In the process of doing this work there is no doubt that substantial amounts of money will be used for work which will prove to be fruitless. Blind alleys are normal and to be expected in any program in research and development which explores the unknown. Ultimately a cure for cancer will be found, but it will only be because the trial and error approach has been applied extensively and over a long period of time in the process.

In the case of Project Sanguine there is a recognized need for an emergency communications capability to reach out strategic nuclear submarine forces in a matter of minutes during a time of emergency or war. All other communications facilities may be destroyed or jammed. The need clearly justifies the effort in this case. The $5.5 million requested for fiscal 1972 will answer the question as to whether the Sanguine approach is a feasible solution. The survivability of this Nation is as important as the physical health of this Nation.

I see no point, Mr. President, in restating all of the arguments that were made in the debate on the previous amendment, although much of what was stated at that time applies to the issue at hand. For those of my colleagues who would be interested in reviewing the voluminous detail which was placed in the RECORD at that time, I would refer them to the RECORD of September 22, 1971, pages 32876 through 32903.

At this point, Mr. President, let me briefly review the sequence of events which relate to the changes that have occurred in this program since it was presented to the Congress last January. Project Sanguine is included as part of the program entitled "Fleet Ballistic Missile Control System." This program contains two projects, Project X1508 Fleet Ballistic Missile Control System Gryphon—shore to ship—and X1511 Fleet Ballistic Missile Control System Hydrus—ship to shore. Project Sanguine is one of several tasks within Project X1508, which is directed toward a development of shore to ship, secure, communication systems for command and control of deployed fleet ballistic missile forces. The $5,557,000 requested for Project Sanguine is part of a $12,107,000 requirement for Project X1508, which in turn is part of a $14,804,000 requirement for the program Fleet Ballistic Missile Control System.

I have explained this in detail, Mr. President, because it points up a very basic characteristic of the entire research and development program. The total research and development program for the budget year contains 475 separate programs. These are divided into 2,000 separate projects which in turn are broken down into 30,000 separate work units and tasks. The proposed amendment, therefore, has singled out one item in a listing of 30,000 items which are included in the pending bill. Mr. President, the committee was sufficiently interested in Project Sanguine that questions were raised on this program during the formal hearings which were held on this bill. I would refer my colleagues to page 2696 in part 3 of the hearings published on the fiscal year 1972 authorization request. At that time, April 6, 1971, Dr. Frosch, Assistant Secretary of the Navy for Research and Development, appeared before the Research and Development Subcommittee in support of the Navy program. In response to specific questions he explained Project Sanguine and indicated its current status. Mr. President, I ask unanimous consent that that portion of the hearings relating to Project Sanguine be printed at this point in the RECORD.

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

Senator MCINTYRE. Last year there was much publicity and some public objection to the Sanguine electromagnetic field which was represented by an Elf test facility in Wisconsin. Concern was that these tests could have some effect upon the population and electronic equipment in that area. How has this been resolved? Is the program continuing on schedule?

I refer to an article here which we will include in the record, from the Milwaukee Journal of the 27th of February 1971.

(The article follows:)

[From the Milwaukee Journal, Feb. 27, 1971]

REPORT ASKS NEW STUDY OF SANGUINE

MADISON, WIS.—A study by persons outside the US Navy of the need for Project Sanguine and a comparison with possible alternatives have been called for in a report by the University of Wisconsin Industry Research Program, part of the UW Graduate School.

The report said no one knew what effect the Navy's proposed communications project in northern Wisconsin would have on plants, animals and humans. Much more study and positive information is needed before any system is built, according to Thomas J. Murray, who prepared the report.

"Preliminary studies about effects on organisms are inconclusive, have been made at much higher power than a final system would use and appear, in some cases, not to have been well done," the report said.

It also said persons involved on each side of the controversial issue had shown more concern for forcing their point of view on others than for evaluating the facts. The project has been sharply criticized by conservationists.

Other comments in the report were that the system probably could be built without the installation process causing a large disturbance to the area and that its interference with power and telephone lines could be corrected effectively, but it would be expensive.

Dr. FROSCH. What we have in Wisconsin is a test setup which is very much like a set of powerlines with a power station and which we are using to test the propagation of communications to our submarines at sea and to examine the effect that such an antenna would have on powerlines, telephone lines, local biology, and so on. It is precisely a test system to find out what, if anything, the effects are and what needs to be done to mitigate them.

The evidence so far is that there are some things that need to be done to power and telephone lines to prevent problems. To my knowledge there is no evidence of any biological effects, and indeed, we would not expect them since, as I say, we expect the antenna system to be very much like the powerlines that already run through the area.

There have been a number of what I would characterize as fairly wild assertions about what this is, whether it works and what its effects might be. I think we have been able to answer questions either by mail or in hearings.

Senator MCINTYRE. Is the program continuing on schedule?

Dr. FROSCH. Yes.

Senator MCINTYRE. And you say the matter has now been resolved?

Dr. FROSCH. Well, I would say that some of the reports have been resolved. I do not believe we have satisfied all of the people who have made assertions.

Senator MCINTYRE. Are these people primarily conservationists?

Dr. FROSCH. There are some conservationists, some technical people, some people who have, I must say, some fanciful ideas as to what it is going to do. We are trying to satisfy the local people by providing information. The program is R. & D., it is not deployed nor has a decision to deploy it been made.

Mr. BENTSEN. Mr. President, it is significant that the specific questions which were asked involved the environmental effects upon the population and electronic equipment in Wisconsin as well as the status of the program. Several other statements made by Dr. Frosch are significant and bear repeating at this time:

To my knowledge there is no evidence of any biological effects, and indeed we would not expect them since, as I say, we expect the antenna system to be very much like the power lines that already run through the area.

There are some conservationists, some technical people, some people who have, I must say, some fanciful ideas as to what it is going to do. We are trying to satisfy the local people by providing information.

And finally Dr. Frosch says—

The program is research and development, it is not deployed nor has a decision to deploy it been made."

It is apparent from the above, Mr. President, that despite the fact that this was one out of 30,000 tasks and work units in the budget the committee considered it to be of sufficient importance that it undertook to pose a series of questions to determine the status of the program.

It is clear from the preceding testimony, Mr. President, that the statements made by Dr. Frosch this past April clearly indicate a sensitivity to the en-

vironmental aspects of this program, and an intent to continue to examine that aspect of the program to the ultimate satisfaction of all interested parties. Equally important, and a fact which is not changed as of today, is that this program is in its early stage of research and development. The funds requested for fiscal 1972, I must repeat, are to be used only for concept formulation and related tasks. The Navy has neither the intention nor authority to proceed beyond this phase during this fiscal year. If the progress in this program proves satisfactory from a technical point of view, if the environmental implications are not unacceptable, and if the Navy and the Department of Defense are convinced that this program should proceed to the next phase of development, the Congress will have adequate time to consider all of these facts when the authorization request is submitted for fiscal year 1973.

The detail of the program proposed for Project Sanguine when the fiscal 1972 budget was submitted consisted of eight separate items aggregating $5,557,000. One of these, in the amount of $2,140,000, was planned to be used for the design of facilities and site research for a deep underground system.

A series of studies which have been conducted since the budget was submitted resulted in a determination that the effort planned for the deep underground system should not be pursued and the $2,140,000 which had been planned for that purpose was reapplied under the authority available to the Navy to perform other important tasks under Project Sanguine.

With a highly technical and illusive issue at stake, it seems to me that research teams ought to be given a chance to pursue a number of avenues in their efforts to solve the problem. Some of these will undoubtedly prove to be cul de sacs; they should not be expected to find an open freeway on every first try.

I request unanimous consent to have a chronology of the events and decisions relating to the deep underground effort inserted in the RECORD at this point.

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

FISCAL YEAR 1972 BALANCE OF PLANNED OBLIGATIONS FOR SANGUINE

Task	Amount	Committed	Planned obligation
Propagation research (Naval Research Lab)	$25,000	Yes	Sept. 1971
Nuclear effects studies (Office of Naval Research)	100,000	Yes	Nov. 1971
ELF measurement equipment (National Bureau of Standards)	20,000	Yes	Sept. 1971
Receiving Antenna Research (Contractor)	300,000	(1)	Oct. 1971
SANGUINE studies on multi-site locations and concepts (Contractor)	117,000	(1)	Nov. 1971
Cable research, land use planning, engineering support and general projects studies. (Various contractors and Navy laboratories)	576,000	No	Oct.-Dec. 1971
Total	1,138,000		

[1] In process.

FISCAL YEAR 1972 OBLIGATIONS FOR SANGUINE

Task	Amount	Obligated
Systems Engineering and Technical Support (MITRE Corp.)	$600,000	Aug. 2, 1971
Test Facility operation and maintenance (Nav Elex Mid West Division)	300,000	July 20, 1971
Design support for ELF receivers and natural parameters (Naval Research Lab.)	80,000	July 19, 1971
General R. & D. work in natural parameters, receivers, receiving antennas, and general submarine support (Naval Underwater Systems Center)	870,000	Aug. 3, 1971
Environmental program support and research (IIT Research Institute)	415,000	Aug. 25, 1971
Site selection evaluation and criteria. Measurement of conductivity (GTE/Sylvania)	165,000	Sept. 9, 1971
Program management support, systems engineering studies (Computer Sciences Corp.)	191,000	Aug. 25, 1971
Facilities design and research including survivable components and power generation (Office of Naval Research)	698,000	July 27, 1971
Biological/Ecological Research (Office of Naval Research)	300,000	Sept. 17, 1971
Design consultation, receiver design, field measurements, and other theoretical studies (MIT/LL)	800,000	Sept. 8, 1971
Total	4,419,000	

Mr. BENTSEN. Mr. President, the new work to be performed with the funds diverted from the deep underground effort is partially under contract with the remainder to be placed under contract by December 31, 1971. That new work is an essential integral part of the redirected Sanguine project and must be performed at the same time as the other work contained in the program to provide the timely answers needed to decide whether the program should proceed beyond the concept formulation phase into the validation phase.

The Senator has stated in a letter that has been sent around to his colleagues that he does not think this would be the case, that it would not interrupt the ongoing Sanguine research and development, but I think this is clearly not the case; that it would prohibit us from taking advantage of some of the other means of research which should be done in trying to arrive at an acceptable answer.

The amendment proposed by the Senator from Wisconsin would disrupt this plan and unnecessarily delay the concept formulation phase of this program. It is possible that if such a reduction as he proposes is made the continuation of this program may be in jeopardy because some work already underway would have to be terminated and the program completely reevaluated to determine if it is feasible to continue.

When a football team is on the offense, they are given not one, but four downs to try to move the ball; if a running play fails, they can try a pass; if they cannot move the ball into the end zone, they can try to kick a fieldgoal. In short, they have a number of options available and more than one chance to succeed. This same principle ought to apply to research and development.

I strongly urge my colleagues to join with me in opposing the proposed amendment.

Mr. PASTORE. Mr. President, will the Senator yield?

Mr. BENTSEN. I yield.

Mr. PASTORE. Is the Senator actually saying that when the Navy decided to abandon the deep Sanguine program it then decided to broaden the scope of research with reference to the shallow Sanguine program?

Mr. BENTSEN. Let me rephrase it, if I may. When the request was originally made for the Sanguine project, it was my understanding that the request from the Navy to the Department of Defense was something in excess of $11 million to try to accomplish the objective, and they proposed many alternative avenues of research. This request the Department cut down to—something in excess of $5.5 million.

Mr. PASTORE. It was cut down by whom?

Mr. BENTSEN. It was cut down by the Department of Defense prior to the request to our committee.

This means that there were a number of other possible alternatives that were cut out, because they felt at that time that the deep hole process would be the most favorable one. They disproved that. They wanted to go back to expanding the research and substitute other avenues of research for it.

Mr. President, I yield back the remainder of my time.

Mr. NELSON. Mr. President, I must say that I admire the great ingenuity of the distinguished Senator from Texas in his presentation. It is, I think, the best defense of a defenseless proposition that I have ever heard on or off the floor of the Senate.

Mr. President, there is no explanation that can be made here on the floor of the Senate as to why the Navy needs to add this $2 million on top of the $3.5 million that it originally requested except that, like any bureaucracy in any government in the world, the last thing they would conceivably do is create the horrible precedent of returning $2 million to the taxpayers' pocket that they do not need.

When they found out that they could not defend drilling holes 1 mile deep in the Laurentian Shield in the northern part of my State—and they made that decision on September 9, the day before they announced it—they collapsed and abandoned the proposal. But would they give the taxpayer his money back? No, no. They add it on top of the justification they made for the shallow system before two committees in the House of Representatives and before two committees in the Senate, and they take that $2 million and throw it on top, almost doubling the research and development for the various specific proposals in their Sanguine budget.

I will tell Senators why they did not keep it in there. I announced on September 5 that we were going to fight this proposal on the floor of the Senate, and the question that I raised that the Navy could not answer then, and cannot answer now, and cannot send an answer down here in its defense for anyone to repeat, is this: What sense does it make

for the Navy to go before two committees of each House and ask for $2 million to start exploring the feasibility of a deep underground system anywhere from 1,000 feet to 5,000 feet deep in solid rock when, in fact, the technological feasibility of the shallow system 6 feet deep is in serious question? It is questioned by a group of distinguished scientists at the University of Wisconsin, and it is questioned by Dr. Albert Biggs, of the University of Kansas. The Navy apparently considered the criticisms serious because when I advised the Navy that these scientists have raised serious questions about the feasibility of the shallow system and suggested that the issue ought to be submitted for independent evaluation to the National Academy of Sciences the Navy agreed. Now the question of the feasibility of the shallow system is under consideration by the National Academy of Sciences and the National Academy of Engineers.

So it is easy to see what an impossible position they were in when they were going to have to come up here and defend exploring the feasibility of a deep underground system when they could not prove as of this date that a system 6 feet underground would work.

That is why that item came out of the budget. There is no other reason for it. But once they gave up on that, they could not stand the idea of giving $2 million back to the taxpayers.

I would like to have somebody stand up here on the floor and tell me what happened when the Navy went before two committees of the House of Representatives and two committees of the Senate on item 1 that was attached to their original request. They said—

> We need $1,110,000 for program management, system engineering support, and communication design consultation.

This is not a new project. Project Sanguine has been going on in Wisconsin since 1967. So they have been looking at this budget and planning every single year. Now they come in and ask for $1.1 million for program management, system engineering support, and communication design consultation.

What happened, that suddenly, on September 10, they decided they had better have $1,485,000 for that purpose? What was their justification? Did they explain that to any committee? Can they explain it here on this floor?

No, they cannot. But as we go through the items, it is a most amazing coincidence that what they add on to the various items adds up to exactly the $2 million that they were going to spend on deep underground exploration.

So now we go to the next item. They came to the appropriate committee of the House and Senate and said—

> We need $705,000 for receiving antenna and receiver subsystem designs.

Seven hundred and five thousand dollars. I assume they justified it before the two committees.

What happened, however, that on September 10, suddenly, instead of $705,000, they changed their figure to $1,260,000 for receiving antenna and receiver subsystem design?

When they came before the appropriate committees of both Houses, they asked for $350,000 for the interference mitigation program—environmental compatibility program and staff support. Well, suddenly on September 10, they raised that to $467,000.

Then for biological-ecological functions, they increased their figure $100,000.

In the original budget, they asked for $427,000 for surface survivability system. When they dropped the $2 million, suddenly, on September 10, surface survivability system jumps from $427,000 to $798,000.

Did the Navy explain to any committee why it was that they made the mistake of not asking for the $798,000 in the first place? No. It is just a division of the $2 million to add on top of what they did not request, did not justify, and do not need; and I think it is nothing short of ridiculous for this body to be permitting bureaucracies to take taxpayers' money and spend it as they wish, without any review whatsoever. That is the trouble with our budgeting process around here.

The distinguished Senator from Texas tells us that the Navy says there are not any serious environmental problems. Let us examine that claim.

In March 1971, the Navy issued a draft (and the Navy insists it is only a draft) Environmental Impact Statement on Project Sanguine. One part of the report said:

> During the approximately four years of environmental research that has been conducted under the Project Sanguine ECAP (Environmental Capability Assurance Program), and the recently-completed Sanguine System Design Studies as well, no permanent or long-term adverse environmental effects which cannot be avoided have been identified.

Now, let me read a statement from a group of distinguished environmentalists from the University of Wisconsin, in response to what the Navy said in March.

In August 1971, the Wisconsin Governor's Ad Hoc Committee of Scientific Experts on Project Sanguine commented:

> We take strong exception to the intent and wording of this entire section, most especially to the first paragraph (quoted above). How could long-term adverse environmental effects be identified or deemed nonexistent when no such studies were conducted? There have not been "four years of environmental research" having to do with biological or ecological compatibility. There are virtually no studies which have been reported to us in written form—

And I assure you there are none reported to me either—

> which provide biological or ecological assurance even on short-term basis. There are certainly none which provide long-term assurance. This has been a point of contention by the Environmental Standards Subcommittee of the Wisconsin Project Sanguine Committee throughout the period of study. . . . (this entire section) is a gloss-over of nonexistent or shoddy investigation of biological and ecological problems and cannot be allowed to stand unchallenged.

That is a statement by a group of distinguished scientists at our University of Wisconsin. I ask unanimous consent to have printed at this point in the RECORD a two-page paper entitled "Project Sanguine," with statements by the Navy and refutation by scientists at the University of Wisconsin.

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

PROJECT SANGUINE

I. In December, 1970, the Navy issued an Environmental Compatibility Assurance Program (ECAP) status report on Project Sanguine. The abstract of the report concluded:

"The results of research presented in this report show that a Sanguine system compatible with the environment can be designed. Research will continue to provide further documentation and to assure that a system can be installed and operated without affecting the present environment."

II. In May, 1971, the Wisconsin Governor's Ad Hoc Committee on Project Sanguine, consisting of several environmental experts with the University of Wisconsin and the state's Department of Natural Resources, commented:

"Such a statement (quoted above) is supported neither by experiment nor by documented review of previous research of other organizations. The question of biological compatibility, especially with chronic exposure of Sanguine fields, is still completely open."

(The Navy has neither acknowledged nor attempted to refute the Committee's comment.)

III. March, 1971, the Navy issued a *draft* (and the Navy insists it is only a draft) Environmental Impact Statement on Project Sanguine. One part of the report said:

"During the approximately four years of environmental research that has been conducted under the Project Sanguine ECAP (Environmental Compatibility Assurance Program), and the recently-completed Sanguine System Design Studies as well, no permanent or long-term adverse environmental effects which cannot be avoided have been identified."

IV. In August, 1971, the Wisconsin Governor's Ad Hoc Committee of scientific experts on Project Sanguine, commented:

"We take strong exception to the intent and wording of this entire section, most especially to the first paragraph (quoted above). How could long-term adverse environmental effects be identified or deemed nonexistent when no such studies were conducted? There have not been 'four years of environmental research' having to do with biological or ecological compatibility. There are virtually no studies which have been reported to us in written form which provide biological or ecological assurance even on short-term basis. There are certainly none which provide long-term assurance. This has been a point of contention by the Environmental Standards Subcommittee of the Wisconsin Project Sanguine Committee throughout the period of study. . . . (this entire section) is a gloss-over of nonexistent or shoddy investigation of biological and ecological problems and cannot be allowed to stand unchallenged."

V. Even a research organization under contract by the Navy recommended further environmental studies on Project Sanguine. In November of 1970, the Hazleton Laboratories, Inc., of Falls Church, Virginia, issued a report to the Navy summarizing results of its short-term laboratory experiments on the biological effects of electro-magnetic fields. Some pertinent conclusions of the Hazleton study:

Possible but inconsistent blood pressure and rectal temperature elevations in dogs;

possible increase in the dominant *lethal* mutation rate in the fruit fly (normally used in mutation studies); possible growth inhibition in one of three plant species used in studies; some avoidance reaction to electrical fields by turtles and fish; declines in populations of four major classifications of soil arthropods at both test and control sites.

The Hazleton report recommended to the Navy:

Additional studies to determine safety limits for the extremely low frequency electrical and magnetic fields, including investigations of effects on other species of plant seeds and the effects on several other aquatic animals; the fruit fly mutagenesis study be expanded and carried out immediately—"The implications of these results are too important to be neglected;" careful studies on how the blood pressure and body temperature of dogs exposed to electrical fields is affected; "finally, because aquatic organisms are so intimately in contact with voltage gradient appearing in water, it would be important to investigate possible reproductive effects in the aquatic animal."

(It is important to note that the northern Wisconsin area is generally forested, with abundant streams and lakes.)

VI. In addition to environmental questions about Project Sanguine that are outstanding, there are several serious questions about the basic technology that will be used in the system. The Navy contends that transmission of extremely low frequency radio waves is the best technology.

In February of 1971, however, the Defense Marketing Survey (DMS), a private organization which monitors defense programs and contracts, issued a short report on the status of Project Sanguine. It concluded with these remarks:

"A year ago DMS forecast that LF (low frequency) and VLF (very low frequency) would eventually replace ELF (extremely low frequency, which is Project Sanguine) in the survivable communications concept. We see no reason to change that projection."

The next enclosure goes into further detail on the technical problems associated with Project Sanguine. It is a Congressional Record reprint in which Senator Nelson discusses the conclusions of two scientific reports that Project Sanguine will not work.

After these important reports were published last spring, Senator Nelson asked the Navy to seek an independent technical review to determine the feasibility of Project Sanguine. On May 14 of this year, the Navy notified Senator Nelson that the National Academy of Sciences and the National Academy of Engineering had been asked to undertake such a review. The review panel is being assembled at the present time, but its work is far from complete.

Mr. NELSON. The distinguished Senator from Texas stated for the RECORD that my amendment was cutting $2 million out of the Sanguine budget. I think the RECORD ought to be perfectly clear on this. My amendment affects only $2 million that the Navy now says that it does not want for deep underground exploration. My amendment permits to remain in the bill every single dollar, right to the penny—and a little more, in fact—that the Navy asks for, for continued research and development on the shallow underground system. It is their figures. It is their request that they presented to two committees of the House and two committees of the Senate.

So I would hope the Senator from Texas would not seriously suggest that I am cutting their budget, with possibly fatal results. If this cut were fatal to the program, it would be due to the incompetence of the planners, the Navy planners who asked for that amount of money and are getting exactly what they asked for. All I am trying to do here on the floor of the Senate is to prevent the Navy from taking $2 million and, willy-nilly, almost double their budget, above the requests that they made in both Houses of Congress. I think it is time we prohibit these bureaucracies from taking the taxpayers' money and spending it in that fashion.

Mr. BENTSEN. Mr. President, will the Senator from Mississippi yield me 3 minutes?

Mr. STENNIS. I am glad to yield 5 minutes to the distinguished Senator from Texas.

Mr. BENTSEN. In listening to the distinguished Senator from Wisconsin, who says he in no way wants to impede the bill or impede the Sanguine project, I am reminded of the boy who was fishing in a stream down in south Texas, who caught a catfish, took it off the hook, and was trying to hold that slippery catfish in his hand. It kept slipping out of his grasp. He had a knife in the other hand.

Finally, he said, "Hold still, little catfish, I'm not going to hurt you, all I'm going to do is gut you."

Mr. NELSON. Mr. President, will the Senator yield for one moment?

Mr. BENTSEN. No, I did not interrupt the distinguished Senator. Let me collect my thoughts.

Mr. NELSON. I was just going to say I thought that was the best answer I had heard thus far to the criticisms I have been making.

Mr. BENTSEN. Perhaps I had better reevaluate my answer, then.

I think what the Senator from Wisconsin is missing, again, is the fact that you must have flexibility in a research and development program. If you put the Navy, the National Health Institutes, or any of the agencies charged with major development programs in a posture where, every time they start down a blind alley, that they have to come back to the Senate of the United States, they would be spending all of their time here.

I think we are in agreement on the fact that there is a recognized need for an emergency communications system from shore to submarines in times of national emergency or war. I cannot help but think back to the search for a vaccine when we were trying to isolate the polio virus, and I can remember the long years of work, the fantastic effort that went into it, and the millions of dollars that were expended throughout this country in that search.

Literally thousands of people identified themselves with the task, working years for a solution. Here was a recognized need. But the answer was a nebulous one and was not certain. But after all these years of research, all these years of effort, we finally came up with the Salk vaccine.

Again, we are talking about research and development. We have a recognized need, and one on which I think we are in agreement.

I believe that the survivability of this Nation is just as important as the health of this Nation. I think this is one of the facets of the survivability of this Nation, that we be able to have this kind of instantaneous communication system with what we have said is one of our greatest deterrent weapons, the nuclear submarine today; that they must be directed from the shore in time of war; that we establish communications; and this, we think, is one of the ways it can be accomplished.

But let us find that solution. We have budgeted a significant amount to achieve the target, and we will go down many a cul-de-sac before we find that freeway. This is where we need help.

Mr. President, I yield back the remainder of my time to the distinguished Senator from Mississippi.

Mr. STENNIS. I yield myself 5 minutes.

Mr. President, this question involves, to a degree, the whole system we have in the committee about reprograming funds.

I have already referred to the fact that within this research and development field we have 475 programs which consist of approximately 2,000 projects broken down into 30,000 tasks and work units.

The question that the Senator from Wisconsin very forcibly raises is about the authority of the Navy, after they have abandoned in part a project of this kind, to carry the money over to another part of the same program. This money they are using, which they propose to use in a somewhat different way, is all within the Sanguine project. We have the system to take care of the great number of items for reprograming. Reprograming applies when the Navy—or the other services—wants to transfer money from one program to another program within the 475 programs I mentioned. Then they have to get permission from the committee for all increases in research and development amounting to $2 million or more; it has to be approved. These are the important items.

The simplest comparison I can think of offhand would be money that is appropriated to build a Navy warehouse under the military construction program, and they find they do not need it, and they want to use it to extend a runway instead. They have to obtain congressional approval to reprogram, because that is a transfer from one program to another. We have that rule and we follow it strictly.

If it was going to be spent in some other way, but still on that warehouse, they would not have to get reprograming approval, not so long as they kept it within the authorized program.

The shifting of funds within the Sanguine program does not constitute a reprograming and therefore requires no congressional approval. We cannot actually supervise 30,000 separate tasks within just one part of the bill. A regular reprograming action, which is not the case in the Sanguine question, has to be looked into by the House Armed Services Committee, the House Committee on Appropriations for Defense, the Senate Committee on Armed Services, and the Senate Appropriations Committee for Defense. So it is quite an undertaking. These committees have hearings and

they take testimony. So it is quite a job, more than just casual bookkeeping. It cannot all be done by the staff members. A great deal of time is spent on these reprograming actions, and it is work that is necessary and highly valuable to the Senate.

Again, the nature of the Sanguine program is research from beginning to end; and research means stopping and starting and exploring and evaluating and going up a false alley or going up one that looks good. It is similar to the man who hires a lawyer and says, "Look into the law. Check this out and see if it is legal." The lawyer cannot run and look at one thing and come back and say, "This is the answer." On close answers, he must exhaustively examine the precedents, the statutes, search his mind for an opinion, confer with his partners, if he has any.

We have here the figures supplied by the subcommittee with respect to most of the detail of this project. We have for example, a heading "Program Management, System Engineering Support and Communication Design Support," with 29 items. In a moment, I will ask unanimous consent to insert this in the RECORD. It shows the change in the detail of original amount and the amount that is presently in the program.

For example, item 13 reads: "E-Field Receiving Antennas," original, $80,000; and it has been reduced to $50,000. Item 14, "H-Field Receiving Antennas," was planned at $150,000, and it is $200,000. But it is all within the Sanguine project.

When we appropriate the money, approve it, that carries with it in law the authority to shift it around within that project when, in the opinion of the Navy, the facts justify it. Someone has to make a judgment on it. If this amendment is adopted, important work will be cut out. That will be an effective cutoff. That will say, "Positive action—take it out."

These matters have to be handled some way, and that is the way we are handling them. If someone wants to propose a better system, we will be glad to consider it. It requires an agreement, though, with these four congressional committees; and, as I have said, there is plenty of work to do under the present reprograming procedures.

Mr. President, I ask unanimous consent to have printed in the RECORD a chart showing the 29 different items, giving the actual figures—thousands of dollars—as to the original plan and then the present plan.

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

	Program management, system engineering support and communication design support		Receiving antennas and receiver subsystem design		Interference mitigation program/ environmental compatibility		Facility design and site research surface survivable		Deep underground		Test facility operation		Biological-ecological research		ELF propagation/atmospheric noise measurements		(Thousands)	
	Original	Present	Original	Present	Original	Present	Original	Present	Original	Present	Original	Present	Original	Present	Original	Present	Original	Present
1. System engineering	900	1,225															900	1,225
2. Communication design support	210	210															210	210
3. Natural parameters and receiving system support		50	50														50	50
4. Environmental program support					350	417											350	417
5. SANGUINE cable investigations							100	100									100	100
6. Hard rock excavation development									120	0							120	0
7. Survivable facilities design							252	303									252	303
8. Air entrainment development							75	95									75	95
9. EMP studies of facilities									0	100							0	100
10. Deep underground site investigations									1,900	0							1,900	0
11. Power generation development							0	300	120	0							120	300
12. Deep underground design studies									0	100							0	100
13. E-field receiving antennas			80	50													80	50
14. H-field receiving antennas			150	200													150	200
15. On-hull antenna development			175	415													175	415
16. ELF antenna development for aircraft			10	35													10	35
17. ELF antenna development for surface ships			15	30													15	30
18. Receiver design and simulation			225	230													225	230
19. Advanced omnidirectional antenna			0	300													0	300
20. Biological-ecological research													200	300			200	300
21. Forest service support and on site surveys											25	0					25	0
22. Test facility operation and maintenance											300	300					300	300
23. ELF propagation measurements															200	505	200	505
24. Atmospheric noise measurements															100	0	100	0
25. Electric field probe development					0	20											0	20
26. Conductivity measurements															0	25	0	25
27. Other site surveys															0	137	0	137
28. Telephone mitigation effort					0	30											0	30
29. Previous contract claim on natural parameter															0	80	0	80
Total:																		
Original	1,110		705		350		427		2,140		325		200		300		5,557	
Present		1,485		1,260		467		798		200		300		300		747		5,557

Mr. STENNIS. Mr. President, I yield the floor.

Mr. NELSON. Mr. President, how much time do I have remaining?

The PRESIDING OFFICER (Mr. GAMBRELL). The Senator has 24 minutes.

Mr. NELSON. I yield myself 5 minutes.

Mr. President, I think everything I have to say on the merits of this amendment has already been said.

I have very high regard for the chairman of the Armed Services Committee and the distinguished Senator from Texas. I realize that this is a huge budget, the largest budget we deal with in Congress. This is a relatively insignificant amount of money out of a huge budget. I realize that it is not possible for every detail respecting every dollar being spent to be carefully monitored by committee staffs or members of committees in Congress. All I have done here, however, is to offer an amendment, in a clear-cut case, where there is no argument whatsoever on the merits, to eliminate $2 million that the Navy itself does not want for the purpose they requested it. No one on the floor of the Senate has responded on the merits of the issue raised by my amendment. If the Navy asks for $2 million for deep underground exploration and abandons that program, why should not the money go back to the taxpayers instead of just adding $2 million to the budget the Navy requested itself and considered perfectly adequate.

The Senator from Mississippi and the Senator from Texas talk about flexibility in the budget. Is it not remarkably strange that the flexibility here is exactly, to the dollar, the amount of money they decided they did not need for deep underground exploration, but needed to add it at this late date, on top of the budget for the shallow system?

The only thing we are dealing with is a bureaucracy which does not want to give back the $2 million it decided it no longer needed for the purpose it was authorized.

Maybe it is a little old fashioned to be here on the floor of the Senate arguing about $2 million. I am arguing about it because they do not need it, and, therefore, we should not appropriate it.

I would like to say to the Senator from Texas, respecting the environmental studies, that there were no plans at all for any environmental studies. They were going to lay that grid in northern Wisconsin without environmental studies. There was no law requiring an environmental study at that time. There was no intent to make any environmental studies until I raised the question in 1968 and insisted on environmental studies because this project poses a serious environmental threat to a large area of my State. The Navy commissioned a study of $150,000 or thereabouts with the Hazelton Laboratory. The day they announced the $150,000 for the environmental studies I announced that it was totally inadequate, that there was no way to make a serious environmental study with only $150,000. That turned out to be correct because they are asking for over $400,000 for continued studies this year.

I conclude by saying that I have heard not one single word of justification for letting the Navy keep this $2 million instead of returning it to the Treasury.

Two things can be said about it. One is that they just cannot stand the idea of giving the $2 million back to the Treasury. The other is that the planners are incompetent to plan a budget. It is one case or the other. Either they cannot stand the idea of giving the money back, or they are incompetent in their budget planning. This matter has been before us for several years in a row—the same items, the same program that they are testing out. There is nothing new whatsoever in it.

I do not know why the Armed Services Committee would spend 10 seconds on the floor of the Senate defending the Navy on this $2 million.

I do not understand it, quite frankly.

Mr. President, how much time do I have left?

The PRESIDING OFFICER (Mr. GAMBRELL). The Senator's time has expired—the 5 minutes. Nineteen minutes are left. The Senator yielded himself 5 minutes just now, which have expired.

Mr. NELSON. Then I have how many minutes left?

The PRESIDING OFFICER. Nineteen minutes.

Mr. NELSON. I thank you, Mr. President.

Mr. BENTSEN. Mr. President, I yield myself 5 minutes.

The PRESIDING OFFICER. The Senator from Texas is recognized for 5 minutes.

Mr. BENTSEN. The distinguished Senator from Wisconsin has alleged that it is a remarkable coincidence that after they abandoned the deep test, the budget request remains the same. It is not a coincidence at all. This was a specific amount of money allocated to achieve an objective, to get an instantaneous communications system with a nuclear submarine fleet in time of emergency or in time of war.

I think that, in this instance, the Navy is actually to be commended as to its sensitivity to the problem, as to its willingness to adapt to a better approach, to try to resolve the problem with an expansion of its alternative effort on the shallow system.

Mr. President, are we going to force the Navy or the DOD into a straitjacket where, once they have submitted a proposal on research and development, an alternative later should prove to be more attractive, and the odds look better, to the last ditch to try to prove something in spite of lessening odds, in the hope that they will have a breakthrough?

I think that is the more economical approach to research and development. Trial and error is basic to research and development.

Mr. President, I think the failure here is the failure on the part of the distinguished Senator from Wisconsin to understand the basic concept of fluidity in research and development, and the fact that when the budget proposes an amount to achieve an objective, we are not talking about production models going down a production line which may suddenly fail and we then choose an alternative weapon system. Here we are groping with many unknowns, trying to find a way.

If we brought before the Senate every instance of failure in research and development, we would be spending our time on nothing else but such problems.

Mr. President, we are beating a dead horse when we talk about this deep underground work. It has been abandoned, it is true, because it does not work; but they think they have an alternative which is better and will accomplish the objective.

I commend the distinguished Senator from Wisconsin in his efforts and his concern for the environment. I do not question for a moment that he has contributed to the fact that the nine environmental studies are being made; but again, I also commend not just the distinguished Senator from Wisconsin but also the Navy on its sensitivity in this regard, and for its concern in trying to pursue a project that will not be harmful to the environment and the ecology.

Once again, let me say that all these studies will be accomplished at the time it comes back before us, where we will have a chance to decide whether it is or is not harmful to the environment—because there are nine studies being made and because it is technically feasible as shown by the research performed to date; when we consider the fiscal year 1973 budget, and then, we can decide whether we want to implement the program and go forward.

The decision, again, will be made here in the Senate, and will be based on a great deal more research than has been completed up to this point.

Mr. President, I yield back the remainder of my time.

Mr. NELSON. Mr. President, I invite attention once again to the fact that the amendment does not interfere at all with the flexibility of the Navy. All the amendment says is that if the Navy abandons the project and tells us it does not need the money, it should not be permitted to take that money and pile it on top of their present Sanguine research and development program.

The fact is, they did not need it. They have gone through four committees over a period of months and have asked for $3.4 million for the shallow underground system.

That is all they want. That is their budget. It is not my budget. Their total request for the shallow system is left in the bill under my amendment.

The Navy has not completely abandoned the deep underground system. They have just abandoned $2 million of it. They would save, for some work or other, $200,000 for some unspecified purpose respecting the deep underground system.

I think the environmental studies will indicate serious environmental disturbances as a consequence of the shallow system.

I am saying that we should not give them the $2 million they did not ask for, and do not need.

Mr. President, is the distinguished Senator from Texas prepared to yield back his time?

Mr. BENTSEN. Mr. President, the distinguished senior Senator from South Carolina wants me to yield him some time.

Mr. President, I yield 4 minutes to the Senator from South Carolina.

The PRESIDING OFFICER. The Senator from South Carolina is recognized for 4 minutes.

Mr. THURMOND. Mr. President, I wish to support the arguments made by the distinguished Armed Services Committee chairman (Mr. STENNIS) and the distinguished Senator from Texas (Mr. BENTSEN) in opposition to amendment No. 441 with reference to the Sanguine project.

This project has been described as a program which promises to provide a vital link for emergency use in communicating with our strategic nuclear submarine fleet under the oceans of the world in time of critical need. There is no assurance at this stage of the program that it will prove to be technically feasible or progress to a full development effort. However, the very existence of this Nation may well depend on our ability to communicate with our nuclear submarine fleet in time of emergency or in time of war. We cannot afford to forgo any possibility of insuring that such a

capability will exist when the need arises. Thus, the Senate would be unwise to delay or otherwise impede a program which holds out the hope of providing this Nation with such an important capability.

The amendment proposed by the distinguished Senator from Wisconsin, Mr. NELSON, would delay this program. This program has evolved over a period of years to the point where a great body of research and technology has been accumulated. This now serves as a sound foundation to progress through the concept formulation stage in which the program is now involved.

The Navy is to be commended for its management of this program and in adjusting the direction in which the program is pointed to accommodate the necessary changes which must occur in any program entailing such new technology. The very essence of research and development is change. A program that does not reflect change in the early stages of research and development is stagnant and does not conform with the normal pattern one might expect.

The Navy is proceeding with vigor in the execution of this program. Over $4 million of the $5.5 million has already been obligated. The remaining funds are earmarked for specific work and will be obligated before the end of December 1971. It would be unwise to interfere in any way with the continuity of this program as it is being run by the Navy.

Mr. President, I cannot emphasize too strongly the importance of this program, and I would encourage all of my colleagues to express their support of these arguments by voting to defeat the proposed amendment.

The PRESIDING OFFICER. Who yields time?

Mr. NELSON. Mr. President, I am prepared to yield back the remainder of my time if the distinguished Senator from Texas is agreeable to yielding back his time.

Mr. BENTSEN. Mr. President, I yield back the remainder of my time.

Mr. NELSON. Mr. President, I yield back the remainder of my time.

The PRESIDING OFFICER. All time having expired, the question is on agreeing to the amendment, as modified, of the Senator from Wisconsin. On this question the yeas and nays have been ordered, and the clerk will call the roll.

The legislative clerk proceeded to call the roll.

Mr. BYRD of West Virginia. I announce that the Senator from Indiana (Mr. BAYH), the Senator from Oklahoma (Mr. HARRIS), the Senator from Hawaii (Mr. INOUYE), the Senator from South Dakota (Mr. MCGOVERN), the Senator from New Mexico (Mr. MONTOYA), the Senator from Connecticut (Mr. RIBICOFF), and the Senator from North Carolina (Mr. JORDAN) are necessarily absent.

On this vote, the Senator from South Dakota (Mr. MCGOVERN) is paired with the Senator from North Carolina (Mr. JORDAN).

If present and voting, the Senator from South Dakota would vote "yea" and the Senator from North Carolina would vote "nay."

On this vote, the Senator from Indiana (Mr. BAYH) is paired with the Senator from New Mexico (Mr. MONTOYA). If present and voting, the Senator from Indiana would vote "yea" and the Senator from New Mexico would vote "nay."

Mr. GRIFFIN. I announce that the Senator from Tennessee (Mr. BAKER), the Senator from Oregon (Mr. HATFIELD), and the Senator from Iowa (Mr. MILLER) are necessarily absent.

The Senator from New York (Mr. JAVITS) is necessarily absent because of religious observance.

The Senator from South Dakota (Mr. MUNDT) is absent because of illness.

The Senator from Utah (Mr. BENNETT) and the Senator from Maryland (Mr. MATHIAS) are detained on official business.

The result was announced—yeas 44, nays 42, as follows:

[No. 235 Leg.]

YEAS—44

Anderson	Hart	Percy
Beall	Hartke	Proxmire
Boggs	Hughes	Randolph
Brooke	Humphrey	Roth
Burdick	Jackson	Saxbe
Case	Kennedy	Schweiker
Church	Long	Spong
Cook	Mansfield	Stevens
Cooper	McGee	Stevenson
Cranston	Metcalf	Symington
Eagleton	Mondale	Taft
Ellender	Moss	Tunney
Fulbright	Muskie	Weicker
Gravel	Nelson	Williams
Griffin	Packwood	

NAYS—42

Aiken	Dole	McClellan
Allen	Dominick	McIntyre
Allott	Eastland	Pastore
Bellmon	Ervin	Pearson
Bentsen	Fannin	Pell
Bible	Fong	Scott
Brock	Gambrell	Smith
Buckley	Goldwater	Sparkman
Byrd, Va.	Gurney	Stafford
Byrd, W. Va.	Hansen	Stennis
Cannon	Hollings	Talmadge
Chiles	Hruska	Thurmond
Cotton	Jordan, Idaho	Tower
Curtis	Magnuson	Young

NOT VOTING—14

Baker	Inouye	Miller
Bayh	Javits	Montoya
Bennett	Jordan, N.C.	Mundt
Harris	Mathias	Ribicoff
Hatfield	McGovern	

So Mr. NELSON's amendment (No. 441), as modified, was agreed to.

MESSAGES FROM THE PRESIDENT

Messages in writing from the President of the United States were communicated to the Senate by Mr. Leonard, one of his secretaries.

EXECUTIVE MESSAGE REFERRED

As in executive session, the Presiding Officer (Mr. PELL) laid before the Senate a message from the President of the United States submitting the nomination of Elmer F. Bennett, of Maryland, to be an Assistant Director of the Office of Emergency Preparedness, which was referred to the Committee on Armed Services.

REPORTS ON HIGHWAY SAFETY AND TRAFFIC—MESSAGE FROM THE PRESIDENT (H. DOC. 92-165)

The PRESIDING OFFICER. The Chair lays before the Senate the following message from the President of the United States:

To the Congress of the United States:

Safety on the Nation's roads and highways is a subject which affects virtually our entire population. Everyone who drives or who rides in a motor vehicle, everyone who walks on and crosses the roadways has a very high stake in the promotion of traffic safety. But safety measures and remedial programs can succeed only if they have the active support of governments at every level, of business and industry, and of the general public.

In previous years, two reports have been submitted to the Congress which separately described the administration of the two principal laws in this important area: the National Traffic and Motor Vehicle Safety Act of 1966 and the Highway Safety Act of 1966. This year a single general summary report has been prepared concerning the operation of these laws. Two separate, supplementary volumes—one for each of the laws—contain additional and more detailed information.

It is my hope that the Highway Safety and the Traffic and Motor Vehicle Safety Annual Reports for 1970 will do much to increase public understanding of this pervasive menace to life, limb, and property. The summary report in particular tells a great deal about what must be done to fight this danger. It discusses the enormous toll of highway accidents in both human and financial terms, and indicates some favorable effects of remedies instituted since the 1966 legislation was passed. In addition, it describes the lifesaving nature of programs which are now receiving priority attention, tells about the major efforts in 1970 to develop and enforce motor vehicle safety standards, and reports on efforts to expand and improve State highway safety programs in accordance with Federal standards. The report also touches on some of the basic research projects which are advancing the technology of automotive and highway safety.

As I transmit these Reports to the Congress, I emphasize again the commitment of this Administration to advance the cause of highway safety. With the cooperation of the Congress, we can continue to make great strides in this critical field.

RICHARD NIXON.

THE WHITE HOUSE, *September 29, 1971.*

MESSAGE FROM THE HOUSE— ENROLLED BILL SIGNED

A message from the House of Representatives, by Mr. Berry, one of its reading clerks, announced that the Speaker had affixed his signature to the enrolled bill (S. 1253) to amend section 6 of title 35, United States Code, "Patents," to authorize domestic and international

studies and programs relating to patents and trademarks.

The enrolled bill was subsequently signed by the President pro tempore.

MILITARY PROCUREMENT AUTHORIZATIONS, 1972

The Senate continued with the consideration of the bill (H.R. 8687) to authorize appropriations during the fiscal year 1972 for procurement of aircraft, missiles, naval vessels, tracked combat vehicles, torpedoes, and other weapons, and research, development, test, and evaluation for the Armed Forces, and to prescribe the authorized personnel strength of the Selected Reserve of each Reserve component of the Armed Forces, and for other purposes.

Mr. ALLOTT. Mr. President, the Mansfield amendment is frequently referred to as an "end the war" amendment. It is no such thing.

Indochina was ablaze with fighting for two decades before the first American died there. And the fact of the matter is that the U.S. Congress is powerless to end the fighting in that region.

This is a hard, cruel fact, but hard, cruel facts are the ones that we must face like adults.

There is only one nation that can end the fighting in Indochina. That is the nation that is waging aggressive war in four nations—South Vietnam, Laos, Cambodia and Thailand. That nation is North Vietnam.

What the United States can do is to disengage itself from the combat in Indochina. This can be done constitutionally and properly by the Commander in Chief, the President. And that is precisely what he is doing.

Of course the Senate can pass amendments of dubious constitutional wisdom and of no practical use. These amendments generate confusion, not peace.

Of course the Congress, exercising its power of the purse, can cut off all aid to all the nations currently defending themselves against North Vietnam's aggression. The Congress could do this, but it will not. It will not do this because that would be ungenerous and cruel.

It would be ungenerous because we are a powerful nation that can afford to give material help to those who want to help themselves. It would be cruel because it would undo and mock the valiant sacrifices of American fighting men in Indochina.

The fighting in Indochina will continue until the North Vietnamese lose their appetite for aggression. The non-Communist nations of Indochina will continue to resist, whether or not we help them. But whether or not they will be successful depends on whether or not we help them.

So that is where we stand now.

The President has moved us into the final stage—the final hours—of our combat involvement in Indochina. He has done this without the use of Senate amendments. He will complete the task without the help of such amendments.

I will vote against this amendment for four reasons. It hinders rather than helps our efforts to secure the release of our men who are prisoners of war or who are missing in action. It is constitutionally dubious. It does generate confusion, not peace. And it does nothing for the morale of our allies in Indochina who are now carrying the burden of the fighting.

AMENDMENT NO. 435

The PRESIDING OFFICER. Under the previous order, the Chair will now lay before the Senate amendment No. 435 by the Senator from Wisconsin, for himself and the Senator from Indiana (Mr. HARTKE), which the clerk will read.

The legislative clerk read the amendment, as follows:

On page 8, lines 5, 6, and 7, strike out "$3,256,200,000 of which not to exceed $801,600,000 shall be available for an F–14 aircraft program of not less than 48 aircraft" and insert in lieu thereof the following: "$2,454,600,000".

On page 10, between lines 4 and 5, insert a new section as follows:

"SEC. 203. (a) None of the funds authorized to be appropriated by this or any other Act may be obligated or expended for research and development purposes in connection with F–14 aircraft program except to the extent necessary to terminate and settle contractual obligations for research and development entered into prior to the date of enactment of this Act.

"(b) All funds appropriated to carry out research and development in connection with the F–14 aircraft program which remain unexpended after the termination and settlement of existing contractual obligations shall be credited to the miscellaneous receipts account of the Treasury. Upon the termination and settlement of such contractual obligations, the Secretary of the Navy shall report to the Committees on Armed Services of the Senate and the House of Representatives regarding the amounts necessary to terminate and settle such obligations and the amount of unexpended funds returned to the Treasury as required by this section."

Mr. MANSFIELD. Mr. President, will the Senator yield?

Mr. PROXMIRE. Mr. President, I am happy to yield to the majority leader without losing my right to the floor.

UNANIMOUS-CONSENT AGREEMENT

Mr. MANSFIELD. Mr. President, I am about to make a unanimous-consent request on amendment No. 437.

As the Senate will recall, it was agreed yesterday to have a vote on four amendments not only today but also tomorrow, starting with amendment No. 445, to be offered by the distinguished Senator from Missouri (Mr. EAGLETON). That was to be considered on the basis of a 2-hour limitation.

The next amendment, No. 437, was to be debated but without any limitation on time, and following that there would be the Fulbright amendment, No. 438, on which there is a 2-hour limitation.

At this time—I think all parties have been consulted, all corners have been covered—I ask unanimous censent that on amendment No. 437 there be a limitation of 3 hours, to be equally divided between the distinguished Senator from Mississippi (Mr. STENNIS), manager of the bill, and the Senator from Montana now speaking.

The PRESIDING OFFICER. Is there objection? The Chair hears none, and it is so ordered.

Mr. MANSFIELD. Mr. President, I left out a very important part.

I ask unanimous consent that there be a limitation of 30 minutes on any amendment offered to the amendment, the time to be equally divided.

Mr. STENNIS. Mr. President, reserving the right to object—and I do not expect to object—for the information of Senators interested, would the Senator give an estimate as to what time we expect to convene and the intervening time before we get to vote on those amendments?

Mr. MANSFIELD. Yes, indeed. The Senate will convene at 10 o'clock tomorrow morning. There are three orders for recognition of Senators, 15 minutes each, and for a morning hour of not to exceed 15 minutes which may be, if circumstances warrant, extended.

Then the amendment by the distinguished Senator from Missouri, having to do with the MB tank will be offered, under a 2-hour limitation. There will be a rollcall vote.

Next, amendment No. 437, on which the Senate has just agreed to impose a time limitation will be called up. The debate will take place for a period of not to exceed 3 hours. At the end of that time there will be a rollcall vote.

Following the disposition of that amendment, the Fulbright amendment will be called up. There is a 2-hour limitation on that, and there will be, as I understand, a rollcall vote on that amendment.

Mr STENNIS. I thank the Senator.

Mr. MANSFIELD. Mr. President, I renew my request.

The PRESIDING OFFICER. Without objection, it is so ordered.

Mr. MANSFIELD. I thank the Chair, and I thank the Senator from Mississippi.

The unanimous consent agreement reads as follows:

Ordered, that, during the further consideration of the unfinished business (H.R. 8687), debate on each of the following amendments be limited and considered in the following order:

(1) On Thursday, September 31, 1971, following the morning business debate on amendment No. 445, to be offered by the Senator from Missouri (Mr Eagleton), debate be limited to 2 hours to be equally divided and controlled between Mr. Eagleton and the Senator from Mississippi (Mr. Stennis).

(2) Following the disposition of the Eagleton amendment No. 445, the Senate will proceed to the consideration of amendment No. 437 by the Senator from Montana (Mr. Mansfield), with debate limited to 3 hours, to be equally divided and controlled by Mr. Mansfield and the Senator from Mississippi (Mr. Stennis).

(3) Following the disposition of the Mansfield amendment No. 437, the Senate will proceed to the consideration of amendment No. 438 by the Senator from Arkansas (Mr. Fulbright), with debate limited to 2 hours, to be equally divided and controlled by Mr. Fulbright and the Senator from Mississippi (Mr. Stennis).

Ordered further, that on Monday, Octo-

ber, 4, 1971, when the unfinished business is laid down, the amendment No. 430, by the Senator from Colorado (Mr. Allott), be made the pending business and that debate thereon be limited to 3 hours, to be equally divided and controlled between Mr. Allott and the Senator from Mississippi (Mr. Stennis).

Provided, that debate on any amendment to any one of the above amendments be limited to 30 minutes, to be equally divided and controlled by the mover and the Senator from Mississippi (Mr. Stennis).

The PRESIDING OFFICER. Who yields time?

Mr. PROXMIRE. Mr. President, I yield myself 10 minutes.

I ask for the yeas and nays on the pending amendment.

The yeas and nays were ordered.

Mr. PROXMIRE. I ask unanimous consent that the name of the Senator from Oregon (Mr. HATFIELD) be added as a cosponsor of this amendment.

The PRESIDING OFFICER. Without objection, it is so ordered.

Mr. PROXMIRE. Mr. President, the distinguished Senator from Indiana (Mr. HARTKE) has led the fight on this program for a number of years. It was only in his behalf that I put the amendment in, and I expect him to make the principal speech on it a little later. I shall speak quite briefly, as I have already spoken at considerable length on this F–14 program.

Mr. President, the reasons why I am opposed to the F–14 are as follows:

A threshold consideration—and that only—is the cost of the plane. Everybody knows that its estimated unit cost has increased from $11.5 to $16.7 million since the beginning of the year. And that figure does not include the inevitable cost of a future Grumman bailout or the new engines which the planes will eventually need.

The Navy knows that these additional costs will be incurred. It knows, too, that more than 300 new fighters will be needed. But it refuses to accept the political risks involved in coming clean now about the true cost status of the plane.

In reality, the F–14 will be the most expensive fighter plane ever built. It will cost three to four times as much as the F–4 fighter it is intended to replace. Its missiles alone are likely to cost more than any enemy fighters it will face. The 10-year systems cost for a 300-aircraft F–14 program will likely be $15 billion.

Another threshold consideration in its own right is the Grumman bailout which lies ahead—on next year's purchase if not this year's. We have just bailed out one large aerospace company. We cannot do the same for another if we want to introduce any integrity into the procurement contract bidding system. Grumman is facing a projected loss of $367 million today for a 300-aircraft program because during the final months of contract negotiations for a 463-aircraft program it reduced its bid by $474 million in order to land the contract. Buy-ins of this kind simply should not be rewarded.

But these are admittedly threshold issues. One cannot cancel a program every time the cost goes up or it turns out that a buy-in has occurred. At times the system may be needed and there may be no alternative available. But we do not need the F–14. And we do have a suitable alternative.

The Navy's strongest justification for the F–14 is the fact that it is the only Navy fighter candidate which can carry the Phoenix missile, with which the Navy hopes to protect its carriers.

But carriers today are growing ever more vulnerable. It is highly doubtful that they can be protected against submarine torpedo attack and against cruise missiles fired from submarines, surface ships, and bombers.

To face up to this fact is not to surrender control of the seas to the Soviets. It is to free resources to counter the real Soviet threat to our sealanes—the new submarines which the Soviets are presently building at a much faster rate than we.

And the Phoenix itself is a disaster. It is so expensive—$40,000 per shot—that it has been test fired only 42 times in the 10 years of its development for fear of dissipating assets. I said before and I say again that it would be countermeasured and outmaneuvered if it worked at all under combat handling conditions.

Let us look at the countermeasures point. For reasons of classification I cannot specifically discuss the means by which the Phoenix can be countermeasured. I have here in my hands, however, an unclassified English translation of a Russian textbook on the principles of jamming and electronic countermeasures. The textbook explains on a theoretical level precisely how a pulse doppler radar and its associated missile can be jammed. This textbook is actually used in the training of U.S. Air Force tactical ECM specialists at Nellis Air Force Base. What it says was confirmed by hardware tests of the Phoenix at the Naval Weapons Center's Corona Laboratories, tests which the Navy has now "forgotten."

And if we really wanted the Phoenix despite its high cost and probable low effectiveness, we would not need the F–14 to get it. We could put it instead on the A–6, an aircraft with all the range payload and loiter needed in a fleet defense interceptor.

So much for the F–14's strongest justification.

As a fighter, the F–14 is no better, according to some recent studies, than the F–4 fighter it is intended to replace. In all probability, it will be no match for new Soviet fighters likely to be developed during the next 5 years. And it could be put to shame by a new light Navy fighter of our own.

The F–14 will have the poor maneuverability it does because it will be weighted down with the same complex avionics and air-to-air missiles which have been countermeasured, outmaneuvered, and often barred from use for the last 5 years in Southeast Asia.

In fact, its main dogfight weapon will be a new $100,000-per-copy version of the Sparrow missile, earlier versions of which in Vietnam have proven one-quarter as effective against enemy aircraft as our fighter planes' cannons or guns, while costing 200 times as much per firing or 800 times as much per kill.

Perhaps most frightening are the force structure implications of the F–14. Viewed realistically, it is an exercise in gold-plated unilateral disarmament.

Since the mid-1950's, we have bought some 1,500 F–4 and F–8 fighters for the Navy and the Marine Corps inventories. With the F–14 four times as expensive as these planes, there is no way we could hope to replace them with F–14's on anything like a 1-for-1 basis. If we replaced them with only the 300 F–14's on which the Navy is now officially planning, we would have a force structure only one-fifth its former size.

Other countries, meanwhile, are continuing to maintain their force levels by turning out light high performance fighters at a cost they can well afford. Consider the implications if our potential enemies maintained their fighter inventories while ours shrunk to one-fifth its present size.

The U.S. Navy would soon have one-half as many fighters as the North Koreans and only one-tenth as many as the Chinese. And some of these planes would soon be better fighters than the Navy's F–14.

We would have spent far more than our adversaries for far fewer fighters of very marginal ability. And they would have spent less yet achieved a numerical superiority which could be devastating in some future crisis. If we wish to pursue unilateral fighter disarmament, we can do so more cheaply than by buying the F–14.

Actually, we need a new Navy fighter and we need one in considerable numbers. That is why we should abandon the F–14 for a new light fighter prototype program modeled after the program the Air Force recently initiated. A new light fighter could outturn and outaccelerate the F–14 by 80–100 percent. And it could carry both the AIM–9D Sidewinder missile and advanced passive missiles such as the Agile to complement its maneuvering capability. We could buy 700 such light fighters for much less than the cost of 300 F–14's.

These, then, are the reasons why I oppose the F–14.

Mr. President, one final point.

The F–14 is as poor a plane as it is in large part because of the Navy's insistence of repeating with the F–14 the same mistakes it made in development of the F–111B. There are really only two differences between the planes. The F–14 costs about 50 percent more than the F–111B and it is a fiasco which is truly the Navy's own. In virtually all other respects, the two planes might as well be twins.

One of the most perceptive analyses of the similarities of the two planes—and the troubles which lay ahead for all of us—was contained in Chairman GEORGE MAHON's House Appropriations Committee report on the Department of Defense appropriations bill for fiscal 1969. What makes the analysis in question so perceptive is the fact that it was written, in July 1968. The F–111B has just been canceled

and the Navy was about to embark on a replacement for it. That replacement was known then as the VFX, but it soon became the F–14.

The House Appropriations Committee's report began by noting the similarities between the VFX and the aircraft it was replacing. The VFX was to have the same TF–30 engine, the same Phoenix missile system, virtually the same avionics system, and the same variable sweep wing as the F–111B. As the report noted:

It was these basic components of the F–111B which were the source of a number of the problems relating to the weight, cost, and engineering difficulties encountered with that aircraft.

The Senator's 10 minutes have expired.

Mr. PROXMIRE. I yield myself 1 additional minute.

The report also noted that the new aircraft would be a plane combining the fleet defense interceptor, air-to-ground, and air superiority fighter roles of the F–111B:

Apparently there is little difference between the original operational requirement contemplated for the F–111B and that now contemplated for the VFX.

It would be the same plane, the report noted, but it would probably cost more:

. . . the latest estimated unit cost for the VFX–1 for production aircraft, as well as for unit costs which include development costs, are in excess of comparable F–111B costs. The latest estimated average fly-away cost of the F–111B aircraft was determined to be $8.2 million.

The report went on to question the new plane's Phoenix missile capability. It raised the same questions that I have raised in the course of this debate: If we really want the system, why not put it on an existing aircraft?

The Navy has conducted several studies in this respect which demonstrate the capability of existing A–6 aircraft to accommodate the system. The studies also show that a modified version of this aircraft would be even more versatile and still accommodate the system.

The report concluded with a warning to the Navy and the implicit plea for reconsideration:

Commonsense dictates a very careful approach to the development of Navy fighter/interceptor aircraft and the deployment of the Phoenix missile system, lest the nation encounter another F–111B type program. It is apparent that the economy and wisdom of proceeding with complete development of the VFX–1 at this time is extremely questionable, to say the least.

But the Navy did not reconsider, the Congress has not yet acted, and thus we are in the mess we face today. But there is still time to kill the F–14. There is still time to stop this exercise in gold-plated unilateral disarmament.

The PRESIDING OFFICER (Mr. BROCK). The Senator's minute has expired.

Mr. FULBRIGHT. Mr. President, will the Senator yield?

Mr. PROXMIRE. I yield myself 2 additional minutes, and I yield to the Senator from Arkansas.

Mr. FULBRIGHT. I want to say to the Senator that he has made this case—and the press has made it—in a most effective manner. But I must say that I am very discouraged by the attention that the Senator is getting in the Senate. There are five Senators in the Chamber, I believe, and this has been typical on all these matters involving the major elements of the military procurement program.

I believe the particular program the Senator is talking about involves approximately $9 or $10 billion, if they go through with it as planned.

I think the Senator is making a very fine statement. I was preparing to make a statement, but it seems rather futile to make it, with nobody here to listen to it. I commend the Senator for his persistence.

I ask the Senator this question: Is there anything in this plane that resembles the F–111? Is there any characteristic that is similar to it? Was it not designed as a dual-purpose plane and did it turn out to be almost a complete failure?

Mr. PROXMIRE. Yes, as I have said, the F–111B was virtually identical.

Mr. FULBRIGHT. And was it not a complete failure?

Mr. PROXMIRE. It certainly was.

Mr. FULBRIGHT. Did not the Committee on Government Operations look into it very thoroughly and examine it? Yet, in spite of that, did not the Defense Department insist upon building it and did not Congress support it?

Mr. PROXMIRE. That is correct. The Appropriations Committee of the House said that it was the very basic components of the F–111B which gave it the problems—those very basic components that are in the F–14.

The PRESIDING OFFICER. The Senator's time has expired.

Mr. PROXMIRE. I yield myself 2 addititonal minutes.

Mr. FULBRIGHT. Can the Senator explain to me why, after that experience, they now insist on repeating almost the same type of concept?

Mr. PROXMIRE. I cannot explain this.

Mr. FULBRIGHT. Is there any reason the Senator can give as to why they cannot learn from a mistake of that kind? That mistake cost roughly $5 billion, did it not? Not less than that.

Mr. PROXMIRE. It cost somewhat less than $5 billion.

Mr. FULBRIGHT. Not much less.

Mr. PROXMIRE. It cost billions of dollars.

Mr. FULBRIGHT. Is it not generally agreed that it is a failure?

Mr. PROXMIRE. Certainly, the conclusion of Congress is that it was. The program was discontinued.

Mr. FULBRIGHT. As promilitary as the House is, they did not authorize the F–14, did they?

Mr. PROXMIRE. They did not. There is no money in the bill that came from the House for the F–14.

Mr. FULBRIGHT. How does it happen to be in this bill? What is the Senator's explanation?

Mr. PROXMIRE. This Senator cannot explain the reasoning that went into putting the F–14 in the bill. I tried my best to discover it. We had some discussion of this on the floor. Several members of the Armed Services Committee who put it in are available, and I am sure that on their time they will give some kind of answer to the Senator from Arkansas. I am waiting for the explanation.

Mr. FULBRIGHT. The Senator has given a great deal of attention to this and has had his experience with Mr. Fitzgerald and others about similar programs. I am at a loss as to why this type of program, in view of the F–111, can now be brought back for funding. It is absolutely incredible to me, especially in light of the mission it is supposed to perform, which is to protect aircraft carriers. Is this plane designed to protect aircraft carriers from submarines?

Mr. PROXMIRE. It is my understanding that it is designed to protect aircraft carriers from fighter planes, from missiles, and so forth.

Mr. FULBRIGHT. Is not the real threat to aircraft carriers from submarines?

Mr. PROXMIRE. It is my understanding that combating submarines is one of its purposes. It is also my understanding that the F–14 is not capable of doing that.

The PRESIDING OFFICER. The time of the Senator has expired.

Mr. PROXMIRE. I yield myself 2 additional minutes.

Mr. FULBRIGHT. I think the Senator is quite correct. The F–111 was not capable of doing anything but crashing. That is about the only thing I can remember reading about it. Every time it crashed, they grounded it. I think they are all grounded now, are they not?

Mr. TOWER. No, they are not.

Mr. FULBRIGHT. What are they doing with them? Are they in museums?

Mr. TOWER. No. As a matter of fact, the F–111 is the finest target penetration aircraft in anybody's inventory anywhere in the world. I think the Senator from Nevada will substantiate that.

Mr. FULBRIGHT. If it is all that good, why is the F–14 needed?

Mr. TOWER. It is a different mission. The F–14 is an air superiority aircraft. The F–111 is a target penetration aircraft.

Mr. PROXMIRE. It is my understanding that the F–111 was grounded a few months ago, but it may have been permitted to fly again since that time.

Mr. TOWER. It has the best safety record of any system in the inventory.

Mr. FULBRIGHT. Most of its life, it has been grounded because of crashes. I have seen that in the newspapers.

Mr. CANNON. Mr. President, will the Senator yield?

Mr. PROXMIRE. I cannot yield on my time. I am happy to let the Senator respond on his own time.

Mr. FULBRIGHT. I wanted to make a few comments of my own, but I thought that since the Senator has dealt with this problem more than anyone else in the Senate he could make a few more pointed comments about the similarity of the F–111 and the absurdity of that program. They discontinued using it in Viet-

nam because it was not suitable, and crashed, too often. It has all been in the newspapers. They could not classify it.

Mr. PROXMIRE. I thank the Senator from Arkansas. I will be glad to yield to him later. I have promised to yield to the Senator from Indiana, who has been the principal sponsor of this amendment for years.

Mr. President, I ask unanimous consent to have printed in the RECORD at this point two commentaries on the F-14. One is the complete text of the House Appropriations Committee language to which I have been referring. The other is an article published in Newsday, a Long Island newspaper in Grumman's own backyard, which was written in January 1970. It is entitled "Grumman's F-14 Boondoggle: Up, Up, and Away," and it is another perceptive observation from the past of the troubles which have now arrived.

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

HOUSE APPROPRIATIONS COMMITTEE REPORT ON THE FISCAL YEAR 1969 DEFENSE APPROPRIATIONS BILL (DATED JULY 18, 1968)

Subsequent to the submission of the budget estimates the Secretary of Defense, upon the recommendation of the Navy, approved a change to the fiscal year 1969 research and development program. This revision provided $30,000,000 for contract definition for a fighter/interceptor aircraft, known as "VFX-1", as a possible alternative to the procurement of F-111B aircraft. The proposal of the Department of Defense contemplated that a final decision on the specific aircraft to be developed would be made on or before March 1, 1969. Subsequent to this action, the authorizing legislation eliminated further development and procurement of the F-111B. The Committee has approved the revised program as requested by the Secretary of Defense and the Navy for the VFX-1. Funds are also included in the amount of $55,000,000 for continued research, development, test and evaluation of a variety of components for this prospective weapons system. These components were a portion of the former F-111B program which will be common to the VFX-1, as presently contemplated. A discussion of the Navy fighter/interceptor programs, including both the F-111B and the proposed VFX-1, will be found beginning on page 274 of Part 6 of the Committee hearings.

Navy aircraft requirements have been a matter of increasing concern and complexity sinc the F-111B program first encountered developmental problems. It became apparent that increased weight and other problems would seriously degrade the fighter capability of this aircraft. In 1966, the Navy conducted a comprehensive fighter aircraft study to evaluate naval requirements for the 1970's. This study reduced the requirements for certain F-111B Phoenix-equipped aircraft and replaced them with additional F-4 fighters. It was contemplated that the F-4 would remain in the inventory as a principal fighter aircraft until a new fighter termed the "VFAX" could be developed in the mid-1970's. The VFAX concept envisioned a highly-maneuverable aircraft with a multi-mission radar, giving it both an air-to-air and air-to-ground attack capability. The air-to-air capability was to consist principally of an advanced Sparrow missile system termed "AWG-10." The principal item for this new aircraft was to be a new light-weight engine contemplated to be developed and delivered by mid-1970. A similar aircraft is now referred to as the VFX-2.

In 1967, the Navy and interested aircraft manufacturers began to look elsewhere than the F-111B for means to accommodate the Phoenix missile system. The VFAX designs were examined with the idea of utilizing a similar airframe to accommodate the Phoenix missile system and the TF-30 P-12 engine designed for the F-111B. Several aircraft manufacturers subsequently developed and presented proposals to the Navy for aircraft of this general type.

The Secretary of Defense submitted his revised program to the Congress requesting contract definition funds for an aircraft of the type described above which would incorporate the TF-30 P-12 engine, the Phoenix missile system, the major portion of the F-111B avionics system, and probably a variable sweep wing.

It was these basic components of the F-111B which were the source of a number of the problems relating to the weight, cost and engineering difficulties encountered with that aircraft.

The comparison of the two aircraft does not stop with these components. The original operational requirement for the F-111B described it as:

"An all weather carrier-based airborne weapons system for gaining and maintaining air superiority in fleet operating areas and in Navy and Marine Corps objective areas. A secondary capability is to perform air-to-ground missions in support of amphibious and land warfare."

Testimony before the committee disclosed that,

"The combination of missile interceptor capability and ability to perform the close-in air-to-air combat maneuvering of a general-purpose fighter is what is planned for the VFX."

Apparently there is little difference between the original operational requirement contemplated for the F-111B and that now contemplated for the VFX.

Testimony before the committee also disclosed that the latest estimated unit cost for the VFX-1 for production aircraft, as well as for unit costs which also include development costs, are in excess of comparable F-111B unit costs. The latest estimated average fly-away cost of the F-111B aircraft was determined to be $8.2 million.

A highly-critical parameter for carrier-based fighter aircraft of the type contemplated in the VFX-1 program is total weight. A major difficulty of the F-111B program was the increasing weight of the aircraft. The Phoenix missile system, the engine, and the avionics system were principal weight factors of the F-111B. As has been pointed out, the present VFX-1 proposal contemplates the continued use of these same components. The decreased weight contemplated for the VFX-1 is proposed to be achieved principally through the elimination of the pilot ejection capsule developed for the F-111B and the increased use of light-weight but more expensive metals for the airframe. The original F-111B design did not contemplate the use of an ejection capsule; that was added at a later date to insure increased pilot safety. Any failure to meet the weight objectives of the VFX-1, such as that encountered in the F-111B development program, could seriously jeopardize the contemplated effectiveness of this aircraft.

The Navy has recently requested a reprogramming of prior year funds to permit it to proceed with requests for contract definition proposals to the aircraft industy. Despite reasonably detailed studies, the VFX-1 is still a paper aircraft.

The Navy believes it is possible to introduce the VFX-1 into the fleet approximately 12 months or so after the anticipated fleet introduction of the F-111B and to introduce the more advanced VFX-2 fighter by the mid or late 1970's. The Navy has, however, been overly optimistic in the past with reference to both costs and delivery schedules of aircraft. An excellent example of this is described in the recent hearings before the Committee beginning at page 183 of Part 3 and at page 479 of Part 6 of these hearings. This testimony discloses fantastic price increases in the estimated cost of the OV-12A aircraft. This aircraft proposed for procurement by the Navy supposedly would be a military version of a rather simple existing commercial-type aircraft.

There are other aspects of the VFX concept which disturb the Committee. It is contemplated that the VFX-1 will be equipped with the Phoenix missile. Structural strength must be provided throughout the aircraft to accommodate this system. This aircraft evidently is to be used for both Navy and Marine Corps fighter/interceptor requirements. If so, this means that all Marine Corps aircraft of this type will be equipped with the Phoenix missile. Thus, each would have to be equipped with a costly fire control system and suffer the weight disadvantage of the Phoenix missile system. On the basis of testimony before the Committee and previous Navy fighter requirement studies, there are obvious questions as to whether the Marine Corps needs the Phoenix missile system and whether it is required for all Navy fighter aircraft of this type. There is also a question of whether or not adequate consideration is being given to equipping a portion of these fighters with the lighter-weight Sparrow or advanced Sparrow missile system.

If the long-range and sophisticated Phoenix missile system is required for fleet defense as urgently as has been indicated by testimony before the Committee, should not consideration be given to utilizing existing aircraft or modifications thereof to deploy this system with the fleet at the earliest practicable moment? The Navy has conducted several studies in this respect which demonstrate the capability of existing A-6 aircraft to accommodate the system. The studies also show that a modified version of this aircraft would be even more versatile and still accommodate the system.

Would it be more logical for the VFX-1 aircraft to be designed around the AWG-10 advanced Sparrow system, thus potentially reducing weight and cost? Is it practicable to proceed with the deployment of the Phoenix missile system on an existing aircraft or a modified version thereof and to proceed with the maximum speed possible to the development of the VFX-2 aircraft weapons system, including the new light-weight engine?

Common sense dictates a very careful approach to the development of Navy fighter/interceptor aircraft and the deployment of the Phoenix missile system, lest the nation encounter another F-111B type program.

It is apparent that the economy and wisdom of proceeding with complete development of the VFX-1 aircraft at this time is extremely questionable, to say the least. Funds have therefore been included in the accompanying bill only as outlined above. Contract definition will establish more precisely the ability of industry to build the VFX-1 within the characteristics, cost, and time schedules as desired by the Navy and estimated by prospective contractors in this phase. The prospective difficulties and large costs facing this program require careful study of the contract definition proposals by industry and by Navy and Defense Department experts.

The Committee will expect the Navy and the Department of Defense, with the cooperation of the aircraft industry, to carefully and realistically approach the problem of providing a superior fighter interceptor aircraft for Naval and Marine Corps aviation at a realistic cost. Should a decision be reached subsequent to the contract definition phase to proceed with the development of the VFX-1 aircraft, this Committee would have no objections, and would expect, the Department

of Defense to request supplemental funds through the regular executive channels. Funds should be requested not only for development, but for advance procurement requirements not presently contemplated by the Navy proposals but which are required as additional assurance that this aircraft can be deployed in an adequate timeframe.

The Committee will expect the Navy, the Joint Chiefs of Staff, and the Secretary of Defense to carefully examine the proposed VFX–1 concept and other alternatives so that the program resulting from these studies and the detailed evaluation of the various contract definition proposals will provide the Navy with the proper air superiority fighter and interceptor aircraft required to meet potential threats to the fleet, and other Navy and Marine Corps aviation requirements envisioned for the 1970's.

MAJOR MILITARY PROGRAMS

This section of the report is intended to describe briefly U.S. military forces in terms of their principal military missions, rather than in the form of budget categories for which appropriations are made.

The table below lists the major military force programs in the fiscal year 1969 Department of Defense budget requests for the Titles contained in the bill. The Committee's proposed changes are summarized in a single entry at the bottom.

Department of Defense—Major military programs as applicable to titles, I, II, III, and IV

[In millions of dollars]

Major military program	*Fiscal year 1969 budget estimates*
Strategic forces	9,196
General purpose forces	34,665
Intelligence and communications	6,233
Airlift and sealift	1,810
Guard and reserve forces	2,921
Research and development	5,031
Central supply and maintenance	7,108
Training, medical and other general personnel activities	9,397
Administration and associated activities	1,492
Military assistance funded by Department of Defense	1,976
Subtotal	79,829
Deduct:	
Adjustment for retired pay accrual	—90
Proposed legislation	—75
Total obligational authority	79,664
Deduct:	
Financing adjustments	—1,090
Proposed appropriation transfers	—1,500
Estimate, new budget (obligational) authority	77,074
Changes recommended by Appropriations Committee	—4,834
New appropriations in accompanying bill	72,240

GRUMMAN'S F–14 BOONDOGGLE: UP, UP AND AWAY

(By Ernie Volkman)

"We need the F–14 like we need a hole in the head."—Navy pilot.

There are some quarters of the Navy Department where Grumman Corp., has the sanctified status of the Church of the Nativity.

That is not especially unusual, considering that Grumman for years has had a reputation for building dependable combat aircraft, meeting often difficult design conditions inherent for carrier planes. Ask some of the old salts sitting behind desks in the Pentagon what they think of Grumman—especially if they flew "Hellcats" in the Pacific during World War II. They almost get misty-eyed.

However, like all love affairs, this one has occasional blind spots, and they can be terribly expensive. Today's lesson in that ancient truth of love and war goes under the name of F–14, a new multimission carrier jet aircraft upon which Navy and Grumman people alike lavish praise.

Unfortunately, the American taxpayer is generally unaware that the F–14 is: (1) an awful hodge-podge of everything that's wrong in modern American combat aircraft design; (2) a flat contradiction of what many of the Navy's own combat pilots recommend; and (3) an expensive (more than $20 billion) proposition that does not meet any present or projected Soviet threat.

EVENTUAL COST

The most interesting aspect of the F–14 is its eventual cost—provided you can weed it out from a confusing blizzard of often contradictory cost figures. Last month Congress appropriated $266,500,000 for research and development. That's for 12 planes—six test prototypes and six production models. But the bill taxpayers may eventually get for all the F–14s to be built will be a whopper.

For example, under its five-year defense plan, the Pentagon wants 287 F–14s at a cost, according to Sen. John Stennis (D-Miss.), chairman of the Senate Armed Services Committee, of $15,500,000 each—totally, about $4.5 billion. But Sen. Howard W. Cannon (D-Nev.), of the same committee, has said the F–14 would cost $6.4 billion for 463 aircraft. Sen. Barry Goldwater (R-Ariz.) two months ago had the Navy help him prepare a statement saying 716 F–14s would cost $7.6 billion.

The Pentagon only adds to the confusion. Its Office of Systems Analysis tries to price weapons systems on a 10-year basis as a way of predicting relative costs. That office has done such a study for the F–14, but says it's classified. Reportedly, they estimate about $25 billion for the F–14 in its A, B and C versions (about 800 planes over a 10-year period).

The total is significantly higher than any of the assorted cost figures from the Navy. The reason is that the Navy estimates F–14 costs at $8,000,000 per plane on a "fly-away" basis—the basic cost of building the plane and flying it off the carrier deck.

But it's a misleading figure, because it does not include research and development, spares, initial production and other support costs. Nor does the figure include costs of the plane's complex missile and avionics systems. Considering the F–14's cost strictly on a "fly-away" basis is like saying your car cost $1,500 not including insurance, operations, interest, etc.

Actually, the Navy has already said it wants at least 716 aircraft and 1,200 eventually to replace its aging F–4 "Phantom." The common rule of thumb on aircraft procurement is that 10-year direct operating costs of a modern combat aircraft are double its "fly-away" costs. That means the taxpayer would pay about $16,000,000 each in actual costs for the F–14. Consider what 1,200 planes would cost. Consider also that these are really conservative figures and do not consider the possibility of higher costs if the F–14 hits expensive development or production snags—as has nearly every modern major weapons system.

The F–14 might even be worth the money if it had any hope of being a good airplane. The F–14 does not. Its design flatly contradicts what the veterans of air battles over North Vietnam have been telling the Navy: We need a true air superiority fighter, a plane built for the sole purpose of "dogfighting" at any altitude against the light and highly maneuverable Soviet-built fighters, such as the MIG–21, best in the world of its type.

But the F–14 repeats the fundamental error of the F–4 and the F–111: A plane designed to perform a number of missions. The F–111 can't do anything right. The F–4 performs its multiple missions adequately, but none well. Classified Pentagon studies show the F–4, weighted down with navigation, missile and radar systems, was almost useless in dogfights at close range.

LOADED DOWN

The F–14 is also loaded down with electronics gear for its several missions, including a Soviet bomber-launched missile threat that many experts doubt will exist by 1973, when the F–14 is due to join the fleet. The Navy insists the F–14 will also be an air superiority fighter, but many pilots disagree. In fact, during the annual Navy Fighter Pilots Symposium held last year, objections to the F–14 were so outspoken, Navy brass restricted public discussion on what the pilots said.

The Navy insists on compromising the air combat performance of its planes by multipurpose specifications and hybrid designs. There is some question, moreover, whether all the F–14's components will even work.

All of this is particularly galling in light of the fact that the Navy rejected an alternate plan advanced by some in the Pentagon for a true air superiority Navy fighter, at a third what the F–14 will cost.

Aside from the question on the F–14's military merits, there is the larger question of whether this nation can continue to afford paying out billions for weapons systems of dubious value except to the industries who directly benefit.

Mr. PROXMIRE. Mr. President, I yield the floor, and I reserve the remainder of my time.

The PRESIDING OFFICER. Who yields time?

Mr. FULBRIGHT. Mr. President, I understand that the Senator from Indiana is agreeable to allowing me to proceed.

Mr. HARTKE. Yes.

Mr. FULBRIGHT. He would rather speak a little later.

Mr. PROXMIRE. How much time does the Senator from Arkansas wish?

Mr. FULBRIGHT. Seven or eight minutes.

Mr. PROXMIRE. I yield 7 minutes to the Senator from Arkansas.

Mr. FULBRIGHT. Mr. President, I strongly support the amendments—Nos. 435 and 436—introduced by the Senator from Wisconsin (Mr. PROXMIRE), along with the Senators from Indiana and Oregon (Mr. HARTKE and Mr. HATFIELD), in regard to the Navy F–14 fighter plane.

I believe the Senate should halt further expenditures for this ill-advised program, the most costly fighter plane in history and one of very questionable merit.

Mr. President, we have a rare opportunity here. Ordinarily, on those infrequent occasions when the Senate does take a bold step and delete or reduce funds for one of these extravagances, the money is eventually restored in the conference committee at the insistance of the House. However, in the case of the F–14, the House has already deleted all the proposed procurement funds. Therefore, we have the chance to follow the House and eliminate this item altogether.

I cannot recall when an item of this consequence was in a situation in which the Senate action would be decisive. I deeply regret that many of my colleagues are not present to listen to the Senator from Wisconsin in particular and to the Senator from Indiana, because if they were aware of the facts about this plane, I have no doubt they would vote to delete it. Unfortunately, they are not here. I suppose they will simply take the word of the representatives of the Pentagon and there will be no opportunity for them to know what they are voting on. I deeply regret that.

The Committee on Armed Services has recommended $228 million for research and development on this plane and $806 million for the procurement of 48 aircraft. This is a program of considerable magnitude—better than $1 billion just for fiscal 1972. When I consider all the public service programs which so desperately need funds—and we are scratching around for a few thousand dollars to help some school districts in my State—this billion dollars takes on some real meaning.

If I might review the history of the F–14 briefly, this contract was awarded to the Grumman Aerospace Corp., in February 1969. Five contractors submitted designs and prices in October 1968. In December 1968, the competitors were reduced to two. Shortly before the final evaluation of bids, Grumman reduced its bid by a substantial amount, and on February 3, 1969, it was awarded the contract.

Only 2 years after the contract was awarded, however, the Grumman Corp. was already forecasting significant financial losses for itself. Meanwhile, the price tag per plane was ballooning toward $20 million—it is already over $16 million. And one of the features of the F–14 was supposed to be its use of already developed engines, avionics, and air-to-air missiles, which, we were led to believe, would hold down costs. Further, the number of planes to be produced has been scaled down—not unwisely I might add, although we are getting less planes for more money. Additionally, the program is already some months behind schedule.

As the chairman of the House Armed Services Committee said on June 15 in a remarkably straightforward comment during that body's consideration of the program:

> It was ascertained by the committee's review that the F–14 was experiencing technical difficulties and cost-increase problems.

Originally the F–14A was to be the first model in a series. The F–14B was to offer an engine of higher thrust and lower weight, and the F–14A was, in effect, a stepping stone. The Navy contemplated converting to the F–14B as soon as it was available. However, let me quote from the report of the Committee on Armed Services on the F–14B:

> Research and development problems have arisen which, although not desirable, are not unexpected and will take more time to resolve. Therefore, the Navy will purchase more F–14As.

Mr. President, it seems to me we are being asked to appropriate vast amounts for a questionable plane, with a questionable mission. The cost is steadily mounting at a time when we are hard pressed to provide funds for vital domestic programs. The cost of just one plane is in the $16 to $20 million range. In Arkansas now we have roughly this amount in pending and unfunded requests for grants and loans for development of water and sewer systems for small communities under the Farmers Home Administration. Likewise, we have $20 million in pending, unfunded projects under the urban renewal neighborhood development program.

Mr. President, I could cite numerous examples of where this money is needed and could be more wisely spent. We simply cannot afford to continue to throw money down this bottomless pit.

The Washington Post said in its excellent editorial:

> (The F–14) . . . is pretty much a textbook case of what can go wrong in weapons planning—from the drawing board on.

Mr. President, I ask unanimous consent to have printed in the RECORD at the conclusion of my remarks an editorial published in the Washington Post for today, entitled "The F–14: Is This Plane Really Necessary?"

The PRESIDING OFFICER (Mr. BROCK). Without objection, it is so ordered.

(See exhibit 1.)

Mr. FULBRIGHT. Mr. President, in connection with this program which is so questionable, and in connection with others which are so dubious, I do not hesitate to remind the Senate of some of the competing projects which are now being neglected.

In anticipation of this debate, I had some preliminary estimates made with regard to what is happening on domestic programs in my State, which is a relatively small State, with a population of under 2 million. I cite some examples of how much money is needed in my State to fund projects of a vital nature:

PRELIMINARY SUMMARY OF UNFUNDED PROJECTS IN ARKANSAS

DEPARTMENT OF AGRICULTURE

Farmers Home Administration Water and Waste Disposal Systems for Rural Communities: Loans and grants are made to public and nonprofit organizations primarily serving rural residents to plan and develop domestic water supply and waste disposal systems. $8,967,000 in grants; $11,760,000 in loans; 133 unfunded applications, $20,727,000 total.

School Lunch Program: Cash grants to assist States to initiate, maintain, and expand nonprofit food service programs for children to improve child nutrition.

Proposed regulations issued by the Department of Agriculture reducing the amount reimbursed to school districts for lunches for needy children will mean a loss of $987,000 for Arkansas.

DEPARTMENT OF COMMERCE

Economic Development Administration: The function of EDA is the long-range economic development of areas with severe unemployment and low family income problems. It aids in the development of public facilities and private enterprise to create new, permanent jobs. (Public works grants and loans; business loans for industrial and commercial facilities; guarantees for private working capital loans; and technical, planning, and research assistance for areas designated as Redevelopment Areas.)

$16,000,000 approved and unfunded in pending EDA projects in Arkansas. Director says that $50,000,000 per year could be used if available.

DEPARTMENT OF HOUSING AND URBAN DEVELOPMENT

(Figures represent money requested, not necessarily approved)

Home Ownership Assistance Program (Sec. 235): Provides a home buying subsidy to lower-income families by providing for the payments periodically by the Federal Government to the mortgagee, which serve to reduce interest costs. This reduction in the interest costs effectively lowers monthly payment requirements and permits a greater number of lower-income families to participate in the home buying market.

3,300 units pending, $2,824,800.

Rental Housing (Sec. 236): Authorizes interest reduction subsidy payments by the Federal Government, which in effect reduce the rental charge to the tenant. The payments that are made to the mortgagee on behalf of the tenant reduce interest costs to one percent, thereby reducing the amount of rent that it is necessary to charge the tenant to cover the monthly cost of the project.

2,973 units pending, $2,081,100.

Section 236 Rent Subsidy: Up to 40% of the units in Sec. 236 projects can receive rent supplement assistance.

595 units pending, $535,500.

Section 221(d)(3) rent subsidy: The housing provided under this program is privately owned, privately operated, and primarily privately financed. Eligible tenants are required to pay at least 25% of their income towards the rental rate and any deficiency is made directly by the Federal Government to the project owner.

2,160 units pending, $3,240,000.

Water and Sewer Grants: This program provides grants to construct community water and sewer facilities that are basic to efficient and orderly areawide community growth and development. Grants cover up to 50% of land and construction costs for new facilities.

16 applications pending, $2,477,541.

Public Facilities Loans: This program provides long-term loans to finance the construction of needed public works: construction of water and sewage facilities, gas distribution systems, street improvements, public buildings (excluding schools), recreation facilities, jails, and other public works.

6 applications pending, $1,102,529.

Neighborhood Facilities Grants: This program provides grants to aid in the construction and/or rehabilitation of multi-service neighborhood centers which offer a wide range of community services. Facilities must create, extend or improve existing health, welfare, social education, cultural and recreation services in the neighborhood.

7 applications pending, $793,492.

Low-rent Public Housing: This program provides loans and annual contributions which permit public agencies to provide decent, safe, and sanitary housing for low-income families at rents they can afford.

96 projects, 5,000 units pending, $87,000,000.

Urban Renewal Neighborhood Development Program: This program provides a new method of undertaking urban renewal plans and activities.

14 applications pending, $20,000,000.

HUD total $120,564,952.

DEPARTMENT OF HEALTH, EDUCATION, AND WELFARE

Student Financial Aid: This program establishes loan funds at public and nonprofit private American colleges and universities, accredited post-secondary business schools, and technical institutions to permit undergraduate and graduate students to complete their education.

Dollar value of unfunded applications, $1,003,604.

Community Mental Health Centers: This program provides grants to help finance the building and initial staffing of community mental health centers. To qualify, a center must offer at least these five services: inpatient treatment; outpatient treatment; partial hospitalization; emergency services; and consultation and education.

Fort Smith Center (approved but unfunded) $323,152.

School Construction: This program provides (1) assistance to local education agencies for constructing schools in districts that have had a substantial increase in enrollment due to Federal activities; (2) assistance to school districts with substantial numbers of pupils who live on Federal property; and (3) direct payments to local education agencies for maintenance and operations of schools in districts that are financially burdened by activities of the Federal Govt.

Dollar value of unfunded applications, $1,474,900.

Students in Low-Rent Housing: $113,519.

HEW total: $2,918,373.

DIRECT LOANS

Small Business Administration: This program provides funds that may be used to construct, expand, or convert facilities; to purchase building equipment and material; for working capital. When other forms of financing are not available, S.B.A. will consider making a direct loan (not to exceed $100,000).

The SBA office in Arkansas has discouraged direct loan applications because of lack of funds.

OFFICE OF ECONOMIC OPPORTUNITY

Family Planning: This program provides grants to make available family planning services to low income persons in areas having high concentrations or proportions of poverty. Among the services that can be supported are clinical, education and counselling, outreach, and referral.

Dollar Value of unfunded applications, $911,380.

Emergency Food and Medicine: This program provides grants to make available on a temporary basis basic foodstuff and medical services to counteract conditions of starvation or malnutrition among the poor.

Dollar Value of unfunded applications, $421,775.

Others; Community Action Program: This program helps local communities mobilize human and financial resources for combating poverty.

Dollar Value of unfunded applications, $1,015,193.

OEO total, $2,384,348.

AMTRAK

Amtrak provides no passenger service in the state of Arkansas.

Mr. President, a recital of these unfunded projects in Arkansas, and I'm sure the same situation exists in other States, highlights to me the fact that, for some reason, Government seems unable to relate the basic needs of our citizens—to the need for a program such as we are considering now. We seem to be developing a kind of psychology that everything in the military field must have first priority. Our people are as much concerned about pure water and pollution by waste disposal as anything before us today, yet these projects are ready to be built but remain unfunded.

Mr. President, in answer to the plea that planes such as Lockheed's, and others, should be funded because of employment, I believe that the employment which would be provided by the $20 million for water and sewage projects alone would be much higher per dollar invested than would money to construct the F–14.

Mr. President, we have been down this winding, dead-end road before. Surely we can change directions and help get this Nation back on the track with a logical and rational allocation of our resources.

I know that it is not easy to go against the Pentagon on these matters. We have tried on many occasions and seldom been successful. Due to the leadership of the Senator from Wisconsin (Mr. PROXMIRE) and others, however, we have a well-documented case against the F–14 and the situation should be sufficiently clear that there should be no question about rejecting these funds.

Mr. President, an interesting article appeared in the National Observer for October 2, entitled "Laird Readies Bigger Arms Request."

The article, by Mr. Jude Wanniski, says:

> . . . Laird and his staff now seem uncommonly confident that . . . they will be able to present such a compelling case that public and congressional opposition to defense spending will recede. "I think this talk about budget cutting will be something of the past as far as the Congress is concerned once they realize the significance of the tremendous momentum of the Soviet Union," says Laird.

I would submit, Mr. President, that the "momentum" we ought to be concerned about is the momentum of the defense budget which just keeps going and growing. And, as I have often remarked, it is truly amazing how frequently these dire predictions emerge at just the time when Congress is considering military appropriations. In the interim, when Congress is considering other matters, we hear about how much progress is being made in the SALT talks and in our relations with other nations.

The article by Mr. Wanniski goes on to state that—

> Much of the steam has gone out of the Pentagon critics in Congress.

In regard to the efforts to make cuts in this procurement bill, he writes:

> . . . At the outset the effort seems disorganized and spiritless, and few observers of the Senate give the doves much chance to make a respectable showing on any of the issues involved.

Mr. President, I do not believe those of us who are trying to restore some balance to our national priorities are spiritless. We may well be frustrated at times, and perhaps even a little cynical. But we feel strongly enough about these matters that we will continue to persist in our efforts, and I am convinced that we enjoy the increasing support of the American people.

Of course, when all the resources of the Pentagon are arrayed against the few Senators and their staffs who are taking the lead on a particular amendment, it is not exactly an even match. Today we consider the F–14; tomorrow the battle tank. Next week something else completely different. Meanwhile we are all involved in committee work on still other subjects. In view of all this it is difficult to counter the power of the Pentagon. However, as I stated earlier, I believe Senator PROXMIRE and others have done a superb job of documenting the case against the F–14.

I cannot fail to say, however, that I was quite impressed by the rather extensive rebuttal to the case against the F–14 placed in the RECORD by the Senator from Nevada (Mr. CANNON) on September 24 and again on September 28. I was not convinced that this material effectively refuted Senator PROXMIRE's case. I was impressed by the sheer volume of it and the speed with which it was prepared by the Pentagon. It is only regrettable that such resources as went into preparing these rebuttals could not have been used more constructively.

It almost looks as if it is an effort to smother the Senate in information—a case of verbal overkill. Perhaps the strategy is to make it all appear so complicated and technical that we will all throw up our hands and say we have not got time to study all this, so take the Pentagon's word and go ahead. If this is the strategy, it is a subterfuge that will not work, because the case against the F–14 is all too clear.

Finally, Mr. President, I cannot help contrasting this avalanche of information on the F–14 with the printed hearings of the Committee on Armed Services consideration of military procurement authorization in 1969. In reviewing the early development of the F–14 program, I find this enlightening exchange in the printed hearings for April 2, 1969, during the testimony of Vice Adm. Thomas F. Connolly:

Senator CANNON. OK, now let's go to the F–14 a moment.

Admiral, what is the Navy's total cost estimate for the research and development and production of the F–14?

Admiral CONNOLLY. Our plan with the Grumman Aircraft Engineering Co. is to buy [deleted] aircraft total. To do this the R.D.T. & E. would be [deleted] million, and the total procurement would be [deleted] billion; making the program about [deleted] sir.

Senator CANNON. About [deleted] billion, is it not?

Admiral CONNOLLY. About [deleted] billion, sir.

Senator CANNON. So the total program, if you are permitted your [deleted] aircraft, does that include that [deleted] aircraft?

Admiral CONNOLLY. Yes, sir.

Senator CANNON. In your first buy?

Admiral CONNOLLY. Yes, sir.

Senator CANNON. Or does it mean [deleted]?

Admiral CONNOLLY. It does include it, and as I explained to you in the special subcommittee, this also includes escalation at [deleted] percent per annum over the next [deleted] years.

Senator CANNON. So that the total program, if you get what you request, would be just under [deleted] billion?

Admiral CONNOLLY. Yes, sir.

Senator CANNON. [Deleted] billion?

Admiral CONNOLLY. Yes, sir.

Senator CANNON. Now briefly, what will the F–14 do that the canceled F–111B will not do in the Fleet Air Defense role?

Admiral CONNOLLY. I think the biggest single thing that it will do that the F–111B will not do is that it will get out, if you launch from the carrier, you can get out to the incoming raid in much quicker time, in maybe about [deleted] the time, sir. That is the one most important thing that it will do in Fleet Air Defense.

Now the second most important thing that it will do, it can dog-fight in defense of the

fleet, using its close-in missiles and its gun. These two things the F-111B was deficient in.

Senator CANNON. Those are the two principal things?

Admiral CONNOLLY. Those are the ones; yes, sir.

Mr. President, I ask unanimous consent to have printed in the RECORD a fact sheet on the F–14, as well as the article I have already referred to, published in the National Observer for the week ending October 2, 1971, entitled "Laird Readies Bigger Arms Request," written by Jude Wanniski.

There being no objection, the fact sheet and article were ordered to be printed in the RECORD, as follows:

WHY THE F–14 SHOULD BE STOPPED

We agree that a new Navy fighter is needed, but it should not be the F–14. Here's why:

1. *Mission:* The F–14 cannot adequately protect Navy carriers from the threats it is designed to meet. Even if it worked perfectly, the F–14's Phoenix missile system could be saturated by enemy attacks. It is more likely that the Phoenix will be countermeasured, outmaneuvered, and in fact will seldom work at all under combat handling conditions.

2. *Costs:* The F–14 promises to be the most expensive fighter plane ever built. It will cost four to five times as much ($16 million each) as the Navy's present F–4 fighter ($3–4 million each) which it is designed to replace. At present the investment cost of 300 planes is officially estimated at more than $5 billion. And this estimate does not include the cost of the new engines the planes will eventually need or the cost of a Grumman bail-out. F–14 costs have already risen from $11.5 million each to $16.7 million since the beginning of the year. They will eventually reach $20 million. We should not walk into another Lockheed-style bailout.

The F–14's Phoenix missile is the most expensive air-to-air missile ever built. It costs $400,000 per shot, 10 times as much as the next most expensive missile now in our inventory. The six Phoenix missiles an F–14 will carry will cost $2.4 million. That is the approximate cost of 3 Mig–21's and one of our F–4 fighters.

3. *Capabilities:* The F–14's primary mission is to be a new air superiority fighter. Yet recent Pentagon and contractor studies show that it is no better than the Navy's F–4 fighter which it is intended to replace. It will be no match for new fighters the Soviets are likely to develop during the next five years. It is impossible to build a good fighter which can also carry the Phoenix missile.

4. *Security Implications:* Purchase of the F–14 would be an exercise in gold-plated unilateral disarmament. Since the Mid-1950's, we have bought roughly 1,500 F–4 and F–8 fighters for the Navy and Marine Corps inventories. If we replaced these planes with a new generation of only 300 F–14's, we would be left with an inventory only one-fifth its former size. The U.S. Navy would have half as many fighters as the North Koreans and one-tenth as many as the Chinese. A future crisis would find us at a sharp numerical disadvantage.

5. *Sunk Costs:* Yes, we have already invested over $1 billion in the F–14's development. But it would cost us $4 billion more to finish buying the planes and another $10 billion to operate and maintain them until they are 10 years old. Over 90 per cent of the F–14's cost still lies ahead.

6. *Alternatives Available:* The Air Force now estimates that its light fighter would cost $3 million per copy in production. It would also to perform the F–14 by 80–100 per cent. If a similar Navy program were undertaken, we could buy 700 planes and maintain them for 10 years for under $7 billion. And the new fighter could be available by late 1975, one year after the date now projected for the F–14.

And if we wanted to try to protect the Navy's carriers with the Phoenix missile, we could put that missile on another plane whose sole function would be carrier protection. The A–6 would be the best candidate, at a cost one-third the cost expected for the F–14 itself. Since the A–6 is an existing plane, it could be available as early as the F–14. And since it is built by Grumman, which makes the F–14, it would boost employment there.

The House has already deleted all F–14 production funds from this bill. If the Senate acts on our amendment, the F–14 will be dead.

[From the National Observer, Oct. 2, 1971]

SOVIETS QUICKEN PACE, HE WARNS: LAIRD READIES BIGGER ARMS REQUEST

(By Jude Wanniski)

The word at the Pentagon: Time is running out on the Strategic Arms Limitation Talks (SALT) with the Soviet Union. Unless agreements are reached within the next few months, Defense Secretary Melvin Laird will ask for major and costly additions to the U.S. strategic arsenal to keep pace with what he calls "the tremendous momentum" of the Soviet arms build-up.

What's more, Laird and his staff now seem uncommonly confident that if it comes to that, they will be able to present such a compelling case that public and congressional opposition to defense spending will recede. "I think this talk about budget cutting will be something of the past as far as the Congress is concerned once they realize the significance of the tremendous momentum of the Soviet Union," says Laird.

The Pentagon chief hasn't revealed any new numbers on where the Russians are now. He'll present these early in 1972 in his budget request for the coming fiscal year. But he does say the Soviets are already exceeding the projections that he thought possible when he made his last defense-posture statement in March.

FLEET PARITY BY 1974

At the time, he said, U.S. defense planners expected the Soviets would have 1,500 land-based intercontinental ballistic-missile (ICBM) launchers by mid-1972. And the Soviets were producing Y-class nuclear attack submarines, those comparable to the Polaris, at a rate that would give them parity with the U.S. fleet by 1974. The United States has 1,054 ICBMs and 41 Polaris subs.

The concern is not that the Soviets will be able to match the U.S. strategic force, but that, in the absence of a SALT agreement, there's no telling how far the Russians may go. "It appears," says one Defense Department official, "that they are interested in something more than a mutual balance of terror; they're looking for superiority, as strong a hand as they can hold to be able to advance, psychologically and politically, their national objectives."

Few believe Moscow seriously thinks it might somehow be able to reach a first-strike capability—the ability to so overwhelm the U.S. nuclear deterrent that retaliation would be limited and "acceptable" to Russia. Rather, it's thought the Soviets hope to build a military strength of such impressive depth—both strategic and conventional—that it would provide a formidable underpinning for political initiatives.

"I'D HAVE TO SEE HIS NUMBERS"

Laird's warnings about the momentum of the Soviet build-up were given added credence recently by the International Institute for Strategic Studies, the authoritative London-based research body. It had much the same assessment. Nevertheless, some Pentagon critics on Capitol Hill are suspicious, believing Laird may be using scare tactics to keep his defense budget—now before the Senate—from being cut. Most Pentagon critics assert that the United States possesses a nuclear "overkill" so great that it is inconceivable the Soviet build-up would make any difference, whatever its dimensions. "I'd have to see Laird's numbers before I'd let him get me upset," says one Senate skeptic.

Of course, despite all the gloomy reports from Helsinki on the agonizingly slow pace of the SALT talks, which last week adjourned until November, the White House still hopes for a breakthrough before the end of the year. President Nixon announced on May 20, with a fanfare that in retrospect seems to have been overdone, that Washington and Moscow had agreed at the highest levels to conclude an agreement this year on antiballistic-missile (ABM) systems and "on certain measures with respect to the limitation of offensive strategic weapons."

The fifth round of the SALT talks ended in Helsinki last week. U.S. Ambassador Gerard Smith said the prospects were good for an agreement limiting strategic weapons when the talks resume in Vienna on Nov. 15.

If the SALT talks do not produce such an agreement soon, the President will have to expect some political embarrassment, no matter how vigorously Laird suggests the Russians have acted in bad faith. Mr. Nixon's Democratic adversaries, especially those campaigning for the Presidential nomination, will be prepared to argue that he let an agreement slip through his fingers. As they have in the past, Sen. Edmund Muskie and Sen. Hubert Humphrey can assert that the Administration should have been willing to accept the limitation on defensive weapons that the Russians have offered. Sen. Henry Jackson of Washington has been arguing from the other direction that the President has not been tough enough in negotiating with the Russians.

One of the main obstacles at SALT is the Soviet reluctance to limit construction of their Polaris-type submarine fleet. It appears the Russians would come to terms on the number of land-based ICBMs, since they now have half again as many as the United States. But U.S. defense planners have been arguing that a limit on the number of submarines is essential to any agreement. Some Navy forecasts suggest the Russians want to go to 60.

SPEEDING THE PACE

Should the submarine issue force delays on a meaningful agreement into next year and beyond, it is almost certain the Pentagon will want to speed up the U.S. pace in the arms race. At the least, Laird will probably want a U.S. commitment to build a new supersonic bomber, the B–1, now in research and development. He would also likely ask a speed-up in the ABM deployment effort, and perhaps a crash effort in development of a new submarine called Undersea Long Range Missile System (ULMS), also currently in research and development.

These specifics are not mentioned publicly, but Laird has already given Moscow an idea of what he has in mind by stating that the fiscal 1973 defense budget request will be on the order of $80 billion.

Since the current year's budget request of $76 billion includes Vietnam costs of more than $10 billion, costs that are expected to drop sharply in the year beginning next July 1, the Laird figure of $80 billion suggests a hefty boost for weapons procurement, modernization, and research and development.

It is one thing to talk of an $80 billion defense budget and another to get it through Congress, especially in a Presidential election year—one in which most of the President's potential Democratic adversaries are urging a recording of national priorities away from the Pentagon.

Vice President Spiro Agnew bore in on this issue last week, accusing Senators Muskie, Humphrey, George McGovern, and Edward Kennedy of "reckless and appalling" statements advocating cuts in the defense budget. In his sharpest remark, the Vice President said: "None of them, I am sure, would draw any comfort from the fact that Gus Hall, general secretary of the Communist Party, USA, agrees fully with the oft-stated goal of forcing a U.S. withdrawal from Vietnam and further 'reordering' the nation's priorities." He added, "To say that we are drifting toward imminent peril, to say that our national survival is at stake, is no exaggeration."

The Laird people, though, believe the tide of criticism the Pentagon has had to absorb in recent years has already receded and that happier days are ahead. "The only reason so many people came together to fight the military-industrial complex was Vietnam," says a top Defense Department official. "Vietnam is no longer a burning issue and next year it won't be an issue at all. Laird has always known the only way to be able to make the necessary repairs to our national defense policy was to first get rid of Vietnam."

PENTAGON UNSCRATCHED

Some of this may be wishful thinking. But there is evidence that much of the steam has gone out of the Pentagon critics in Congress.

It took 4½ months of debate for the two-year extension of the draft to get through the Senate. But when the debate finally ended last week after a cloture vote, and the bill was passed and sent to the President, the Pentagon hadn't been scratched. None of the major assaults on Administration defense policy was successful: the end-the-war amendment, the amendment to bring the troops home from Europe, the amendment to cut $6 billion from the defense budget.

Additionally, it seemed the Senate doves are getting tired battling the Pentagon. When it completed the draft bill, the Senate took up the defense procurement authorization bill, which contains $21 billion for weapons and research. In 1969 and 1970, the debate on the procurement bill led to clashes between the doves and the defense establishment; in 1969 the doves came within a single vote of denying the President his ABM system. The debate thus far has been lethargic.

M'GOVERN CONCEDES

The first major amendment proposed was that of South Dakota Democrat McGovern, who wanted to cut $339,000,000 from the funds to develop the B–1 bomber. After a few hours of *pro forma* discussion, with never more than a dozen senators present, McGovern conceded defeat by allowing a voice vote. His amendment was easily shouted down.

Debate on the bill is likely to continue for another few weeks. Wisconsin Democrat William Proxmire, who has been a leader in these annual skirmishes, has joined Indiana Democrat Vance Hartke in an attempt to eliminate funds for the Navy's new F–14 fighter-bomber. Missouri Democrat Thomas Eagleton will try to eliminate research funds for the Main Battle Tank. There probably will be another amendment to cut ABM funds, another to end the Vietnam War in four or six months, another to bring troops home from Europe.

But at the outset the effort seems disorganized and spiritless, and few observers of the Senate give the doves much chance to make a respectable showing on any of the issues involved.

Still, Proxmire can take some satisfaction in knowing that it is harder to cut into the defense budget these days because of the efforts he and his colleagues have made in the past. Before he even brought the bill to the floor, chairman John Stennis of the Armed Services Committee clipped $1.1 billion from the Pentagon's request. Knowing the Proxmire forces await, Stennis makes sure he has a bill he can comfortably defend.

His defense can be fairly comfortable now because of the SALT talks. Many of the controversial budget items are those, like the B–1, ULMS, and the ABM, that are still principally in the development stage. He can argue, as he did in defending the B–1, that "we're all hopeful about SALT. I'm not skeptical. But I know the amount of money for this program will be a mere pittance in value compared to what the time element could be if things went wrong in SALT and thereafter."

After all, according to the Stennis reasoning, if there is somehow a SALT agreement before time runs out on the Pentagon's planning schedule, many of these development programs can be scrapped. If not, Melvin Laird will be asking Congress for production decisions that will make these costs seem insignificant. "The next fiscal year is the big decision year," says Senator Stennis.

Mr. FULBRIGHT. Mr. President, I believe that the Senate and House have lost sight of the demands of the great mass of the people of this country. We must bring into this equation the needs of our people at home as against these far-out and questionable experimental planes. The F–14 is certainly an experimental plane involving a great deal of money. The idea of spending $16 million—it probably will be $20 million—for one plane, a fighter plane, seems absurd on its face. I am unable to understand how this program ever came to be recommended to the Senate, especially in view of the fact that the House itself refused to take it.

Mr. President, I once again commend the Senator from Wisconsin (Mr. PROXMIRE) as well as the Senators from Oregon (Mr. HATFIELD) and Indiana (Mr. HARTKE) for their leadership on this amendment.

I hope that the Senate will follow the advice of these gentlemen who have made such a great contribution to the study of this and other weapons systems which are threatening to drain this country of its resources. These extravagant expenditures have already drained it to the point where we now have a domestic budget deficit of $25 billion this year, and the estimate is another $25 billion for next year.

I hope that the Senate will follow the advice of the Post editorial today and—

Send the Navy back to the drawing board to come up with either an improved F–4 or a new fighter plane that is not too costly to be purchased in adequate numbers and that has a reasonable chance of performing a valid function.

Mr. President, I hope that the Senate will support the pending amendment.

EXHIBIT 1

[From the Washington Post, Sept. 29, 1971]

THE F–14: IS THIS PLANE REALLY NECESSARY?

For the past 10 days or so the Senate has been considering a variety of amendments to the $21 billion military procurement bill, and the debate will continue for some time. Most of the amendments have been designed to trim or eliminate authorizations for specific weapons systems. So far, none has succeeded. Whether or not they should have, and whether or not the string of amendments yet to come should be approved, it seems to us that the vote on one amendment—possibly to be taken today—is crucial and that the amendment should be passed. We refer to the move to eliminate from the fiscal '72 budget some $800 million in funds for the purchase of 48 tactical aircraft that go by the name of the F–14. This air-to-air-missile-bearing Navy fighter plane is pretty much a textbook case of what can go wrong in weapons planning—from the drawing board on.

The F–14 is meant to fulfill the mission of protecting our aircraft carriers against Soviet bombers and fighter planes in any prolonged conventional war we might have with the Soviet Union. It is thus to be equipped with the Phoenix air-to-air "standoff" missile for dealing with Soviet bombers and it is also supposed to have the characteristics—speed, maneuverability, and so forth—that would be necessary to engage Soviet fighter planes. Two large questions loom over the vote that now faces the Senate. One is whether a plane is needed at all to fulfill this particular mission. The other is whether the F–14 is the right plane to fulfill that mission if it is indeed a realistic or legitimate one.

It is our opinion, based on the argument and testimony so far concerning the F–14 that its mission is at the very least a dubious one. We are inclined to credit the widespread view that in any conflict such as that for which the F–14 is designed—i.e., prolonged conventional warfare with the Russians who have the only aircraft that would make such plane necessary—the F–14 would be unable to protect U.S. carriers from the main threat they would face, namely Soviet torpedoes and cruise missiles. The very notion that carriers would have a useful role to play in this particular kind of conflict is questionable, and to invest in this plane before the future size and shape of our carrier force has been determined seems impractical and reckless to say the least.

More to the point, even if the F–14's mission could be justified, it would be far from obvious that the F–14 as we are about to know it is the plane for the job. In endeavoring to create a plane that could fulfill two different functions—that of fighter and that of launch platform for the Phoenix air-to-air missile—the Navy and Grumman Aerospace appear to have wrought a plane that can likely fulfill neither very well. Owing to the requirements for the Phoenix missile, for example, the F–14 is a relatively slow and inadequate fighter plane. And the Phoenix missile which it is meant to bear is still in the throes of 10 years worth of trouble that has plagued it. The F–14 is less adequate as a fighter plane than the modified F–4 which it would replace. What is especially interesting about this point is that it will cost four times as much. Current estimates are $16.7 million per plane, and each firing of the Phoenix—if it can be made to function properly in this aircraft and if its mission has any point in the first place—will cost around half a million dollars. The F–14 program, as Senator Proxmire has observed, "is in many respects a microcosm of many of the problems which plague our defense establishment today: Initial cost estimates which later balloon; the incredible inertia of 10-year-old ideas which have never been thought through; the failure to test new systems before they have been deployed; and the continued emphasis on multi-mission aircraft which do no mission well."

Though the Senate Armed Services Committee in its careful report on the military procurement bill recommended procurement of these planes, it can hardly be said to have done so in a spirit of enthusiasm. It restricted purchase to 48 planes, the minimum possible under the terms of the contract with Grumman, and made its principal argument the fact that it would be even more expensive to buy the planes under any renegotiated terms. As it happens, the administration—if it is authorized to go ahead with the purchase—will have to do so by Oct. 1 to observe the contract's terms. Thus the Senate vote has a double urgency. The F–14

has too many attributes of another great defense turkey to be approved at this time by the Senate. We believe the Senate should send the Navy back to the drawing board to come up with either an improved F–4 or a new fighter plane that is not too costly to be purchased in adequate numbers and that has a reasonable chance of performing a valid function.

Mr. CANNON. Mr. President, I yield myself such time as is necessary.

First, I am going to discuss the F–14 Navy fighter program, but in line with the discussion between the Senator from Wisconsin and the Senator from Arkansas, I thought perhaps I should set the record straight to some degree with regard to their comments on the F–111.

The exchange of information they had shows that a little information can sometimes be a dangerous thing.

I have never seen so much misinformation put out on this general subject of the F–111 and the F–14, which is not supported by the facts, as I heard them mention in this discussion.

Yesterday, with regard to the F–14, I placed in the RECORD a statement rebutting point by point the comments made by the distinguished Senator from Wisconsin (Mr. PROXMIRE).

Before I start on my F–14 remarks, I want to comment on the exchange which took place here a few moments ago.

First, the distinguished Senator from Arkansas (Mr. FULBRIGHT) pointed out what a tremendous failure the F–111B program was. He said that the F–111B airplanes had been grounded more than half the time because of difficulties.

Well, Mr. President, let me go a step further and say that the F–111B's were not grounded more than half the time because they were never built. The F–111B was a project that was not carried out.

In the tactical air force today we have authorized the purchase of F–111's with differing models—the A, the D, the E, and the F—for 429 aircraft.

Also authorized was the F–111B for a total number of 76 for the Strategic Air Command.

Also built were 24 F–111 planes for Australia and two F–111K's for the United Kingdom.

Mr. FULBRIGHT. Mr. President, will the Senator yield?

Mr. CANNON. I will in a moment.

Mr. President, the F–111's that we have built and operated have been the most successful airplane and certainly the finest in the free world today. It was intended as a fast, deep-penetrating aircraft that could penetrate without extensive aircraft cover.

Mr. FULBRIGHT. Mr. President, will the Senator yield?

Mr. CANNON. I gladly yield now to the Senator from Arkansas.

Mr. FULBRIGHT. The Senator mentioned Australia a moment ago. A member of the Australian Government was visiting here last year. He indicated that they were very unhappy because we wanted them to accept the F–111 when they did not want to do so. He personally told me that was a fact.

Mr. CANNON. If he personally told the Senator from Arkansas, I assume that is so.

We built 24 F–111C's for the Australian Government.

Mr. FULBRIGHT. They have not taken delivery.

Mr. CANNON. The Australian Government has borrowed the F–4 from us pending the resumption of the F–111 which, as I understand it, was a political problem.

Mr. FULBRIGHT. Mr. President, that representative of the Australian Government made it very clear to me that they did not want the F–111's. They wanted the F–4. But they had already paid us $200 million and they wanted to get out of it. This man was very upset about our attitude. We were insisting on their taking a plane which they did not trust and did not want.

Mr. CANNON. I cannot speak to that point.

Mr. FULBRIGHT. They have not taken them yet; is that correct?

Mr. CANNON. The Senator is correct. They have not taken them yet. The 24 F–111C's are still retained by us. And the F–4's have been loaned to the Australian Government.

As I pointed out earlier, the F–111 project, which the Senator from Arkansas said was a great failure because they have been grounded more than half of the time, have actually never been used. That is the type of misinformation put out with respect to the whole debate concerning the F–14.

Mr. President, I would like to discuss the F–14 Navy fighter program. A great deal has appeared lately in the press, and undoubtedly a great deal remains to be spoken and written about this important program in the weeks and months ahead. I think by and large this is for the good because it is an important program and deserves thorough and impartial analysis.

It is my earnest purpose today to try and set forth the facts concerning this program. Most importantly I shall attempt to place the facts in perspective as there has been considerable confusion and misunderstanding concerning this vital program.

Senator STENNIS requested the Tactical Air Power Subcommittee, of which I have had the pleasure of serving as chairman for the past 3 years, to thoroughly review this program in conjunction with the administration's fiscal year 1972 budget request. The subcommittee made every effort to be as thorough as possible.

There are several reasons why the subcommittee felt this program required our special interest. They are: First, the F–14 is one of the highest in priority not only to the Navy but also to our overall national security interests; second, the magnitude of the administration's request this year for $1.034 billion—$228 million for R. & D. and $806 million for procurement—required the most careful scrutiny; third, the prime contractor notified the Navy on March 31, 1971, that future performance under the contract "is commercially impracticable under the existing terms and conditions"; and fourth, the first F–14 aircraft was lost on its second flight in December 1970, which impacted substantially on the test program.

I shall discuss these issues as well as other germane considerations. In particular, I hope to clarify the record on the cost situation, which has been the subject of considerable confusion and misunderstanding.

The F–14 program was initiated in 1968 when the Congress denied further funds for the F–111B—that the Senator from Arkansas referred to a few moments ago—which was the Navy version of the TFX. The primary mission of the F–111B was to provide Fleet Air Defense—FAD—of Navy carrier task forces. The Navy in recognition that the F–4 would not last forever as an excellent fighter gave the F–14 a new and controlling mission of air superiority. Hence, the two prime missions for the F–14 are first, air superiority and second, Fleet Air Defense, in that order.

THE THREAT AND THE REQUIREMENT

The Tactical Air Power Subcommittee reviewed the potential threat to our national security for the foreseeable future. This, of course, is represented by the actions of the Soviet Union in recent years toward the development and production of a whole new arsenal of weapon systems. They have made great strides across the whole spectrum of military warfare. In ICBM's they now have over 1,500 to our 1,054. In submarines they have an advantage substantially more than 2 to 1 including continued rapid production of *Yankee*-class nuclear submarines similar to our Polaris submarines; plus frequent modernization of its formidable ground forces.

In tactical fighters the Soviet Union has introduced a new operational fighter into its inventory on the average of every 2 years—an achievement that the United States has not even closely matched or attempted to duplicate. Also, and unfortunately, we generally learn rather late in the game what new development efforts the Soviet Union is pursuing until such time as it is airborne and nearly ready for production. I merely refresh the Senate's memory that during the July 1967 Soviet air show, they flew several new fighters and improved models that we knew little if anything about previously.

It is clear to me that the United States must definitely take every possible action to maintain air superiority. We must not relinquish the skies of any potential battlefield to the enemy. Otherwise our ground forces who rely on invaluable support from the air would be placed in a very dangerous and vulnerable position Secretary Packard, as recently as July 14, 1971, confirmed that the F–14 was needed to meet the Soviet threat.

The Senator from Arkansas raised the question that the House did not approve the F–14 program this year. The Senator is correct. They did not approve it for the plain and simple reason that the Secretary of Defense was undertaking a further review of the program at that particular time. We asked that they review it in great detail and come back and report to us.

I note that the Senator from Mississippi is present in the Chamber. I would like to ask him if he now has a response from the House as to its present position from the chairman of the House Armed Services Committee with respect to that program.

Mr. FULBRIGHT. Mr. President, will

the Senator yield? He mentioned my name.

Mr. CANNON. I will yield in a moment. I want first to yield to the Senator from Mississippi.

Mr. STENNIS. Mr. President, I do have a letter from Representative HÉBERT, chairman of the Armed Services Committee of the House, in which he gives unqualified support for the F–14 in view of the facts existing now and as reflected in the bill. The letter is dated September 27 and was received last night.

I will discuss it in some detail and have it printed in the RECORD when I am recognized.

Mr. CANNON. I am delighted now to yield to the Senator from Arkansas.

Mr. FULBRIGHT. Mr. President, Australia has declined to accept delivery of those planes which were built for them. Those planes are still in our inventory. Does the pending bill itself not carry further appropriations for further F–111's, and why is that so when the mission for which they were designed has proved to be so unrealistic?

Mr. CANNON. The Senator proceeds on a false premise. In the first instance, the mission for which the plane was designed is not unrealistic. The mission for which it was designed is very real. The airplanes are made for a specific purpose and are being used constantly for that purpose.

Mr. FULBRIGHT. Are they being used in Vietnam?

Mr. CANNON. They are not being used in Vietnam.

Mr. FULBRIGHT. That is what I meant. They tried them out.

Mr. CANNON. The operations in Vietnam did not call for the use of that particular plane.

Mr. FULBRIGHT. Where are they used?

Mr. CANNON. The principal purpose for which the F–111 was designed was for use, if necessary, in central Europe for the deep penetration of Russia. In the event we were engaged in a conflict with that great nation, we needed an airplane that could proceed at great speed, carrying a heavy load, without having heavy fighter protection over it, and get in and out. That is what it was designed for. It is the fastest airplane in the world today on the deck. It can go in and get out. It has very precise navigation equipment that permits it to go at extremely low altitude without a heavy load of fighter protection over it and get in and out.

Mr. GOLDWATER. Mr. President, will the Senator yield?

Mr. CANNON. I yield.

Mr. GOLDWATER. Mr. President, I might add that there is also a bomber version of the F–111 being used by the Strategic Air Command. In fact, it is the only modern bomber we have in our fleet. It is capable of delivering any weapon we have in the category that bombers carry.

This aircraft, as the Senator noted, is not only the fastest aircraft at low levels, but also it has the most precise following radar of probably any other bomber so equipped in the world. Sixteen preselected targets with their coordinates can be put in and the plane will automatically fly to those preselected targets.

I had the pleasure last Saturday of flying a mission in the F–111. I did not believe in this airplane when former Secretary McNamara first brought it out. I did not believe it would fill the job. But I am happy that the Air Force is sold on it, both the Strategic Air Command and the Tactical Air Command. It is one of the most superb aircraft ever produced.

Mr. FULBRIGHT. Is it not a fact that when it was used in Southeast Asia it would crash and they stopped using them? It is all right to fly it over the plains of Arizona where there is nothing to obstruct it, but it did not work in Vietnam.

Mr. GOLDWATER. I flew it over Arkansas and that land is flat.

Mr. FULBRIGHT. There are lovely rolling hills in Arkansas.

Mr. CANNON. Mr. President, who has the floor? I had yielded to the Senator from Arizona. I do not wish to use all of my time now.

The PRESIDING OFFICER. The Senator from Nevada has the floor, and he yielded to the Senator from Arizona.

Mr. GOLDWATER. Mr. President, I wanted to point out that the missions they flew in Vietnam were not successful; the airplane at that time was not ready for combat, and it was sent over there against the advice of the Air Force. I can imagine the difficulty they had flying at night and in bad weather in Vietnam where it rains 11,000 feet above sea level. The airplane today, with trained crews could perform those missions without any problems at all.

Mr. HARTKE. Mr. President, will the Senator yield?

Mr. CANNON. I yield on the Senator's time.

Mr. HARTKE. I wish to ask a question.

Mr. PROXMIRE. Mr. President, I yield 3 minutes to the Senator from Indiana.

The PRESIDING OFFICER. The Senator from Indiana is recognized.

Mr. HARTKE. Mr. President, I shall need only 1 minute in order to ask a question.

I am not one to argue about the F–111, but with respect to the F–14, the Senator talks about the report that is under study, and that was not contained in the House bill. Is that correct?

Mr. CANNON. No, that is not what I said. I said at the time the House acted the Secretary was reviewing whether we should go ahead. He completed that review subsequent to the House action and made the recommendation to our committee that the program be approved and carried out, and subsequent to that, Representative HÉBERT, chairman of the Armed Services Committee in the House, wrote to the Senator from Mississippi (Mr. STENNIS) and urged that the Senate approve the program based on the report of the Secretary of Defense.

Mr. HARTKE. What is the date of that letter?

Mr. CANNON. September 27.

Mr. HARTKE. I thank the Senator.

Mr. CANNON. That is a fairly recent date.

Mr. President, the Congress must have the foresight to recognize the actual and most predictable threats to our national security in the mid-1970's and beyond as well as those that exist today. The reason, of course, is quite simple. We cannot buy time with money. It takes years to develop modern weapon systems. Quite obviously no one wants to "wake up" some morning and be told that we should have acted more wisely in years gone by.

I want to emphasize, Mr. President, that I do not consider myself a "sabre rattler" in any sense of the word. I do not want our Government to purchase any weapon system or hardware that is not essential. I fully appreciate the atmosphere that exists today for economy. I also believe we should have economy in government but not "at any price." I feel we must tread carefully lest we take precipitous actions for which the penalty may be a grave one indeed. Therefore, I shall be compelled to speak out from time to time when I feel the scales of economic austerity improperly outweigh those of national security.

BRIEF CASE HISTORY OF F–14 BACKGROUND

The Navy and Grumman Aerospace Corp. signed the F–14 contract in February 1969 with their "eyes wide open." No one was forced to sign the contract. It was a fixed price incentive contract. It provided for the research and development phase as well as firm fixed price options for additional lots of production aircraft covering an 8-year span. The basic contract quantity was for 469 aircraft. However, the Navy could legally increase or decrease this quantity by 50 percent as to any given lot number.

It is important to recognize that the Grumman Corp. has the contract for the development and production of the F–14 and delivers the completed aircraft to the Navy. However, the Navy purchases the engines and the avionics systems and provides them to Grumman as Government-furnished equipment.

The Navy has ordered 38 F–14 aircraft through fiscal year 1971, namely six aircraft in fiscal year 1969, six aircraft in fiscal year 1970, and 26 aircraft in fiscal year 1971. This constitutes the first three lots under the contract. Officials of the Grumman Corp. told the subcommittee staff in May 1971 that it would realize a profit on the first three lots.

The administration request this year was for 48 aircraft and $806 million in procurement funds plus $228 million for R. & D.

I want to emphasize a point, Mr. President, that is frequently overlooked. The 48 aircraft requested this year represent lot IV under the contract. The option for lot IV calls for a "base" quantity of 96 aircraft. As I indicated, the Navy can increase or reduce the "base line" quantity by 50 percent and still maintain the integrity of the contract. It is extremely important to bear in mind, therefore, that the request for 48 aircraft consequently represents the minimum buy. If the Navy ordered a lesser quantity of F–14's this year, the option prices contained in the existing contract would be null and void, and the contract to all intents and purposes would be broken.

The important result would be that the Navy and Grumman would have to negotiate new prices for all subsequent F–14

purchases. Testimony presented to the subcommittee indicated that if the contract were broken, the Government would be required to pay substantial additional sums to purchase the remaining F–14 aircraft. The explanation is simple. The company would claim and probably receive compensation from the Government for the added costs it is incurring over and above its original estimates when it signed the contract with the Navy. The added costs are due to rapid inflation, a reduced business base, and design changes. Estimates provided the subcommittee indicated the cost of procuring 313 aircraft could rise in the neighborhood of $1 billion.

It was the subcommittee's conclusion, therefore, that it was vital for the Government to maintain the integrity of the contract as long as possible in order to protect the Government's interest and that of the taxpayer.

We do not desire to put any company in a position of serious adverse financial consequences. However, it remains to be factually demonstrated that the company's projected loss on lot IV and subsequent lots will materialize to the degree projected. As a matter of fact, our testimony showed that the company would most probably remain profitable as a corporation through the production of lot IV even though it might sustain sizable losses on the production of the lot IV aircraft. It is also important to remember, Mr. President, that lot IV which we recommend for approval this year, will actually be produced by the company during calendar year 1973. At this point in time there is little accurate visibility as to what the company's situation will be in calendar year 1974 and beyond. That is why the current studies underway by the Navy and GAO at the contractor's plant will be so valuable and helpful. Their objective is to conduct a "should cost" study and analyze the validity of the contractor's pessimistic financial outlook. Their findings will enable the Congress to reach a sound judgment relative to future procurement decisions.

I and the members of the Senate Armed Services Committee were vitally interested in whether the Grumman Aerospace Corp. would respond affirmatively on October 1, 1971, when the Navy is to exercise the lot IV option for 48 aircraft under the contract. This was discussed with Deputy Secretary of Defense Packard during his appearance on July 14, 1971, before the committee. He took this up with the company. Quite obviously the Congress needed positive assurance from the company that it would honor its contract before it could authorize or appropriate $1 billion for this program this year. Mr. Packard subsequently advised the committee that Mr. L. J. Evans, chairman of the board of Grumman Aerospace Corp., had written him on July 27, 1971, that the company would produce the 48 F–14 aircraft in compliance with its existing contract.

Mr. President, the total program cost for 313 F–14A aircraft is presently estimated at $5.2 billion. This includes $1,069 million for the F–14A R. & D.; $324 million for F–14B R. & D.; and $3,814 million in production costs which includes the completed aircraft as well as support and spares costs.

F–14 UNIT COST

Mr. President, the most popular misconception in the press and with many people is the so-called cost overrun on the F–14, from $12.7 million to $16.6 million per aircraft. This illustrates a lack of understanding of this program and a lack of knowledge in the costing of weapons systems generally. The $12.7 million figure is the production unit cost, and the $16.6 million is the program unit cost. The larger figure takes into account the total research and development costs on the program and spreads it out over the total number of aircraft purchased. In the case of the F–14 large R. & D. costs are now spread over a relatively small number of aircraft.

I would like to offer a simple illustration which hopefully will eliminate the confusion. The Department of Defense has a requirement for widgets. The research and development costs are $1,000 paid to company "A" to develop the widget to the desired specifications. A production contract is then let to company "A" for 20 widgets to cost $2,000. Reasonable people will say the widgets unit cost is $100 each. This is called "production unit cost." However, most people today are interested in the total cost of the widget program, so we add the $1,000 for R. & D., which represents the total Government investment of $3,000. If we then divide by the 20 widgets purchased, we can say that the widgets cost $150 each. This is called the "program unit cost." Both figures are correct. Everyone should understand this fact. It is really not that difficult. It would obviously be completely erroneous to conclude that there has been a massive 50 percent "cost overrun" on the procurement of widgets, namely from $100 to $150 each. It was not so. We merely took into account and amortized the R. & D.

The exact and identical logic applies to the F–14 program. Its production unit cost is $12.7 million each. If we add the total research and development costs of $1.3 billion to the production costs and divide by the 313 aircraft to be built, it raises the F–14 program unit price to $16.6 million. This is a standard Department of Defense procedure. It seems straightforward and reasonable to me, and I hope that my illustration will help to clarify some of the confusion.

Now I would like to explain the second phase of the F–14 cost history that demonstrates that the projected program unit cost reported to the Congress over the past 2 years has remained relatively constant. I want everyone to clearly bear in mind that I am referring to the Government's liability under the contract and not to any increased costs incurred by the contractor over what he estimated. I will discuss the contractor's costs shortly.

CHANGES IN QUANTITY

Another fundamental point that must be understood is that the unit price of the F–14 aircraft will vary up or down as the quantities ordered are increased or decreased.

Let us return to the example of our widgets. If we went to company "A" and said I know your charge is $150 each if the Government buys 20 widgets. What will you charge for 100 widgets? Will it be more or less than $150 each?

I am sure, Mr. President, the members of this distinguished body readily recognize the obvious answer. Company "A" will sell widgets considerably cheaper than $150 each. The simple reason is increased or volume production. Conversely, if we desire to purchase only five widgets instead of 20, the contractor will charge significantly more than $150 each as his cost of development and production must now be spread over a significantly lesser number of widgets. Spreading the development cost alone over only five widgets would add $200 to the total cost of each widget.

Mr. President, I feel confident everyone understands this simple illustration. It is a realistic fact of life in American industry. It is obvious to everyone. Yet, when we take the identical situation and apply it to the F–14 program, many people become suddenly confused. They automatically and mistakenly talk about enormous cost overruns. I would like to cite the specific cost figures taken directly from the "Selected Acquisition Reports"—SAR's.

Senator STENNIS was instrumental in the establishment of this financial reporting system several years ago so that the Congress would know more promptly and accurately about the costs of major weapon systems as they proceed through development and production. It is and has been an invaluable management tool for the Congress.

The Selected Acquisition Report for September 30, 1969, shows the program unit cost for the F–14 to be $16.6 million each for 293 aircraft. Nearly 2 years later on June 30, 1971, the program cost is still $16.6 million for 313 aircraft.

I would now like to explain the background on the varying quantities of F–14 aircraft. There have been several different quantities discussed, and they have naturally contributed to the cost overrun confusion.

The four main quantity numbers are 293, 469, 313, and 722. First, the 293 F–14 figure represents the approved 5-year defense program in March 1969. Everyone anticipated more F–14 aircraft would be purchased, but that was the OSD approved program at that point in time. Second, the 469 figure represents the baseline quantity of F–14 aircraft contained in the contract with Grumman. The Government has firm prices for this quantity, and as mentioned, the Government can increase or decrease this quantity at its discretion by 50 percent. However, if it reduces the baseline quantity, obviously the unit price goes up. Third, the 313 aircraft number is the current approved 5-year defense plan Since March 1969, the approved 5-year defense plan has changed four times. Fourth, the 722 aircraft figure represents the Navy approved program and the total number of F–14 aircraft that it desires to purchase for both Navy and Marine Corps requirements.

Mr. President, it is extremely impor-

tant to recognize that with each of these four quantities of F–14 aircraft the program unit cost will vary solely because of the different quantities to be ordered. The program unit cost for 293 aircraft is $16.6 million each. The program unit cost for 469 aircraft is $13.6 million each. The program unit cost for 722 aircraft is $11.6 million each, and the program unit cost for 313 aircraft is $16.6 million each. I cannot emphasize too strongly that people should realize that the program unit cost will vary when the total number of aircraft to be purchased changes. Yet, it has been very regrettable when the quantities of F–14 aircraft to be purchased have been reduced and the program unit price has subsequently and understandably increased, many people immediately conclude a mysterious cost overrun has been incurred. There is nothing mysterious about it at all. That is why the F–4 aircraft is so reasonable today. We have purchased nearly 4,000 of this fine aircraft. You can see from my illustration that if we purchased 4,000 F–14's, quite obviously the cost would drop dramatically below the $11.6 million figure for 722 aircraft.

INCREASED COST TO THE CONTRACTOR

I want to make one point strikingly clear, Mr. President. That is, if the Government unilaterally terminates its contract with the Grumman Aerospace Corp., the Government cost of the F–14 program would jump dramatically. The explanation once again is quite simple. The contractor has incurred significantly greater costs than he anticipated when he bid the contract in 1968. He expected a 3-percent annual inflation factor and has realized 7 percent or greater. He anticipated a much larger volume of Government business, both defense and space, than he has actually realized. Thus, the overhead costs on the F–14 have jumped substantially. A third important reason for increased costs to the contractor has been design changes to the aircraft which are his cost responsibility.

Therefore, if the contract were abrogated, the contractor would naturally desire to recoup these additional costs. That is why I have so strongly advocated adhering to the existing contract this year for the purchase of 48 aircraft.

Secretary Packard in his testimony as recently as July 14, 1971, came to the same conclusion after an intensive review of the program. He also indicated there was no precedent for the Government to grant unilateral relief.

Will the contractor require financial relief from the existing contract in the future? I honestly do not know, and I do not think anybody else does. We are currently awaiting the results of intensive reviews by both the Navy and the General Accounting Office to see if Grumman's pessimistic forecasts are accurate and what solutions are available. Then we can make a reasonable and sound judgment.

Most emphatically, I am against the Government revoking its contract and, as the term is often and well put, "Let him off the hook." If we adopted this approach to contracting, chaos would soon result. Valid contracts would have no meaning. All that would be required would be for a contractor to forecast, not actually incur, losses in order to get contractual relief. There are procedures by which a contractor can apply for relief when losses have actually been sustained.

I want to reemphasize that our testimony indicated that if the Government unilaterally revoked the existing contract that the estimated increased cost to the Government for 313 aircraft could approach $1 billion.

The committee during its investigation determined that the contractor had incurred substantial additional costs by virtue of design changes to the aircraft. Design changes directed by the contractor are its responsibility unless initiated by the Navy. To date Navy-directed design changes have been few in number and have cost $16.1 million. I do not raise design changes as a complaint against the contractor. They have a contract to produce the F–14 to meet certain performance specifications and if it is necessary to redesign the aircraft to meet the stipulated performance specifications, they may do so—nonetheless, it is their financial responsibility and not the Government's.

Our inquiry also showed that subcontractor and material costs increased substantially over what the contractor originally estimated, primarily because of the design changes.

Grumman reduced its "bid price," as the Senator from Wisconsin said, on the aircraft by $474 million during the final negotiations with the Navy and prior to receiving the contract award. This automatically raises the question as to whether the contractor attempted a "buy in." This may have some merit to some people. However, it should be borne in mind that even after Grumman reduced its bid by $474 million, it was still slightly higher in price than two other competing firms. Thus, if one were to conclude there was a "buy in" it would be necessary to consider the bids of three companies. The Navy testified it awarded the contract to Grumman based on the technological excellence of its proposal.

I think Secretary Packard most accurately described this situation when he said that major weapons contracts come along so infrequently that the keen competition tends to drive bids to the lowest level and it is extremely difficult to determine in advance the difference between the lowest realistic bid and one which is too low to perform. This is a business risk normally assumed by competitors in a free enterprise environment. I certainly agree with Secretary Packard.

Our investigation revealed that Grumman, by its own admission in May 1971, still contended that it would make a profit on the first 38 aircraft being purchased by the Navy which constituted lots I to III. Four of the major subcontractors told the staff they would sustain significant losses on the first three lots, yet each one of them was most anxious that the program proceed now that the "growing pains" in achieving an acceptable design have been resolved. Each firm except one had "not to exceed"—NTE—ceiling prices with Grumman for lots IV through VIII, which could cover the purchase of up to 469 aircraft if the Government so desired. Each of the subcontractors indicated that any further change to the program would be most undesirable to say the least.

STATUS OF THE PROGRAM

The F–14 program proceeded satisfactorily until December 30, 1970, when the first test aircraft crashed on its second flight. The cause of the crash was a failure in the hydraulic system. A modification has corrected this situation. The loss of the first aircraft was unfortunate but, as is the case in any test program, not necessarily unexpected. It has cost an approximate 6-month delay in the program and $40 million.

The flight test program resumed with the second test aircraft on May 24, 1971. Currently there are two F–14's engaged in conducting essential test flights to demonstrate the performance requirements. As of September 15 the No. 2 aircraft had flown 23 flights and 46.7 hours.

The No. 3 aircraft, whose mission is to expand the high speed part of the flight envelope, has flown nine times with 21.6 hours flying time. It went supersonic on September 16, achieving mach 1.2. It has also fully swept back the wings. It should be remembered that the F–14 has a variable geometry wing.

The flight test data has been favorable and encouraging. At this point in time it is not proper to make positive judgments as to whether all predicted performance characteristics will be achieved. However, the early results are tracking the Navy's predicted performance.

The technical development program was originally laid out on a compressed schedule. It was believed to be a thoroughly acceptable risk because the Navy already possessed the engine and the avionics. The air frame was the only major component to be fully developed.

In the past few months the F–14B engine has encountered technical problems during development. They are not believed to be insurmountable in any sense of the word. However, they will take time and added testing to resolve.

The Navy F–14B engine is part of a joint development with the Air Force. The Air Force will use a similar, but not identical, engine on the F–15. The engines will have a common core and use common technology. However, the Navy engine will be heavier and have more thrust whereas the Air Force engine will conversely be lighter and have less thrust.

The joint engine is known as the advanced technology engine—ATE—and will represent a dramatic improvement in the state of the art.

The Navy was required to exercise its production option for this engine in September 1971 for fiscal year 1973 deliveries. This would be 5 months before the preliminary flight rating test—PFRT—was scheduled for completion. The more important military qualification test—MQT—of the engine was scheduled for completion in February 1973—the same month that the first production engines were to be delivered.

In the light of the technical difficulties encountered in the development program it was deemed unwise to order F–14B

engines in this year's budget, which would be required in order to obtain initial deliveries in February 1973 because of the 18-month leadtime involved.

The Navy, after careful deliberation and desirous of obtaining further test data, decided against requesting F–14B production engines this year. Currently it appears that F–14B production funds will not be requested until fiscal year 1974 when the engine will be nearing completion of its development.

The current Navy program, therefore, is predicated on 313 F–14A aircraft—12 R. & D. and 301 production aircraft.

Some people have stated that the F–14A is an "old" engine. I wish to assure them that this is not so. It is one of the latest versions of the TF–30 engine series. The TF–30 engine was the first afterburning turbofan engine developed in this country. Since the P–1 version was developed for the F–111 program in 1965, this engine has advanced in thrust and performance until we now have the P–412 version in the F–14A and the P–100 version in the F–111F, which are the two most advanced military engines now in production.

In addition, the F–14A engine has exceeded the specifications laid down by the Navy. It is currently achieving 2,000 pounds greater thrust and at the same time better specific fuel consumption than was contractually required. It also weighs about 75 pounds less than was specified. The advantages of this improved performance over contractual requirements will mean significantly better performances for the F–14A aircraft.

Some people have stated that the F–14A will be no better in air-to-air combat than the F–4. The data provided by the Navy indicates that this is not so. Specifically, the Navy has stated the F–14A will have a 75 percent or better increase in combat radius on internal fuel. It will have a 50 percent or better combat rate of climb at some of the major dogfighting altitudes and conditions. It can accelerate 45 percent faster than the F–4 from high subsonic to high supersonic speed, which is important in order to engage or disengage at will enemy aircraft. It has a 45 percent better roll rate at altitude at typical combat speeds adding substantially to the combat maneuverability. The F–14A with a higher roll rate will be able to change direction or bank angle more rapidly in order to outmaneuver enemy aircraft. It has a 40 percent better energy-maneuverability at typical dogfight conditions.

Therefore, the F–14A will offer a dramatic improvement in fighter capability over the current F–4 aircraft if the Navy's analyses by its aeronautical experts are accurate. As I have stated, the current F–14A flight test program is to actually demonstrate the predicted performance projections. The F–14 will have better carrier suitability in that it will be able to have reduced approach speeds. It will also be able to recover with a much reduced "wind over the deck" requirement. Consequently, this will increase operational effectiveness and increase the safety of flight for the pilots and crews. I hasten to add that there is nothing wrong with the F–4. Everything is relative in weapons systems, and that is the major purpose of my comments. Historically, the growth and weight on tactical fighter aircraft has always been of major concern. Great effort was placed on restraining weight growth in the F–14. It has increased only about 700 pounds, which is less than 2 percent of its projected design weight. This is a most favorable accomplishment.

The Navy has continually stressed that the F–14 design has been concentrated on attaining the maximum in the air superiority role. There have been no compromises in air superiority performance in order to carry out the Fleet Air Defense mission. As a matter of fact, Navy testimony last year indicated that if it was to design an aircraft for air superiority alone that it would weigh only 600 pounds less than the present F–14A design. Yet it has been extremely difficult to obtain recognition that the F–14 has been designed and never compromised thereafter as an air superiority fighter. Yet, because it does have the palletized Phoenix missile capability, many people assume it will not be able to fulfill the air superiority role. For the air superiority mission the F–14 will carry four Sparrow missiles and a 20-millimeter gun.

Sometimes, Mr. President, we also forget a very important fact relative to the design philosophy the United States has always had. That is we require our tactical fighters to have a substantial range or "radius of action" capability because in the past and hopefully in the future we have always fought over enemy territory rather than "over our own skies." Hence, we need tactical aircraft that can carry the battle to the enemy rather than aircraft that take off from Andrews Air Force Base and fight over Washington D.C. This leads to another important requirement for tactical fighters, namely that they must be able to accompany our long range interdiction aircraft, such as the A–6, A–7, and so forth. They must be able to fly a "fighter cover" for these slower, less maneuverable aircraft while they are over enemy territory. If we were to produce aircraft with no real "radius of action" capability, our interdiction aircraft would be vulnerable to enemy fighters.

THE PHOENIX AND AWG–9 AVIONICS SYSTEM

The F–14 weapons systems will incorporate an avionics system that offers a potential never before achieved for air-to-air combat. It will permit the F–14 to stand off and engage enemy fighters, bombers, and cruise missiles at ranges never heretofore possible. This is extremely important when one considers that if our pilots possess a weapons system aboard their aircraft that can effectively outrange the weapons or missiles aboard an enemy fighter, then our pilots are obviously in a superior position.

The Phoenix weapons system was originally developed for the F–111B program. Its primary mission is in the Fleet Air Defense—FAD—role where the F–14 will loiter several hundred miles from the carrier task force and protect these task forces against penetrating fighters, bombers, and cruise missile.

All of the technical requirements for the avionics system have been met or exceeded. As a matter of fact the fire control system will weigh 120 pounds less than was specified.

The Phoenix missile system will be able to "track while scan" multiple targets at the same time—something we have never been able to do previously. The F–14 can carry up to six Phoenix missiles while on the Fleet Air Defense mission, and as I have mentioned this will be a "palletized" configuration so that four Sparrow missiles can be installed instead for the air superiority role.

Six of the seven pilot production AWG–9 systems have been delivered, and this aspect of this program is on schedule and on cost.

The Navy has received "not to exceed" ceiling prices for 7 successive fiscal year procurements that commenced in fiscal year 1971.

The current Navy estimate for 301 production AWG–9 fire control systems is $2 million each. The General Accounting Office after reviewing this phase of the program advised Senator STENNIS on September 3, 1971, that this cost estimate appeared to be realistic.

A high official of the Hughes Aircraft Co. advised only recently that his company intends to produce under the contract options that it has provided the Navy.

Our testimony indicated the Phoenix missile is a mature design which meets its performance requirements. Forty-two test missiles have been launched with 27 hits. This is an almost unprecedented success rate for modern missile systems during the R. & D. phase. Launching from the F–14 will commence in the spring of 1972. Some people feel that we should have more test data before proceeding with production. The Navy has stated that the tests to date have been conducted at the Pacific missile range under actual conditions. The test missions covered low altitude and high altitude targets, maneuvering and non-maneuvering targets, and subsonic and supersonic launches. Twenty of the 36 missions were "look down" missions. Eighteen of the 42 missiles were launched at targets with less than 5 square meters radar cross-sections. A radar cross-section of the F–4 is greater than 10 square meters. In a test conducted this month tracks were maintained and displayed on 12 airborne targets simultaneously. The targets were defined into three groups approaching from three different directions at different speeds and altitudes. The testing to date has also shown a 3-on-3 capability by the launch of two missiles and a simulated launch of the third. It was stated that this adequately tested the Phoenix missile system in a 3-on-3 environment. Each Phoenix missile in flight is guided to its own target and is independent of other missiles in flight at the same time.

At this point in time I personally am not concerned about the fact that we have not demonstrated that six Phoenix missiles can fly simultaneously against six separate and distinct targets. While this is a Navy requirement that the contractor expects to meet, I have not been concerned about demonstrating it because from my personal experience this is a most unlikely condition that could be expected to materialize in combat.

Mr. President, everyone today assumes

sile system with a high degree of reliabil-relatively uncomplicated air-to-air missile system with a high degree of reliability. This is certainly true, but it was not always so. As a matter of fact, during the early days of Sidewinder R. & D. missile flight testing, nearly all of the first 50 missiles fired were essentially failures.

My point, Mr. President, is that if we make snap judgments as to aircraft or missile systems when they are in the relatively early phases of testing and development, we can reach some very bad conclusions. We must have a degree of patience while modern weapons systems are proceeding through the critical test phases.

The Phoenix will be an expensive missile. There is no question about that. The actual cost per missile will vary depending on the total quantities that are purchased just as the cost of the "widgets" vary, as I mentioned in my previous example. The estimated cost of each missile will vary from $236,000 up to $347,-000. While this is a high cost to pay for the Phoenix, it must be remembered that it will also offer us a "kill potential" that we have never attained before. I feel that we need it and should support it on that basis.

Mr. President, I yield the floor.

Mr. STENNIS. I thank the Senator for his fine contribution to the debate. I yield myself 5 minutes.

Mr. President, as has been pointed out, this plane is a substitute for the old TFX Navy version which the committee and Congress itself turned down. That was the beginning of this plane.

I do not suppose there has ever been a jet plane designed to operate at or near this speed that did not have trouble along the way. That is characteristic of that high speed, and it is more characteristic with the planes that are carrier based, as this one is.

As the Senator from Nevada has pointed out, it has one of the best safety records of any that we have made.

There has been so much said and so many allegations made that in the early part of this year, Mr. Packard took this matter under advisement again, and I was very glad he did. He talked to me about it at the time, and again while he was making the reevaluation, and when he made his final conclusion.

During that process, this matter came up on the floor of the House of Representatives, while he was in the process of this evaluation—bills cannot wait for everything—and that was when it was taken out of the House bill, with the very clear understanding and reservation, as reflected in a letter I received from Mr. HÉBERT, the House chairman, just yesterday, which was prompted by the fact that there was some kind of little document floating around here that undertook to quote Representative HÉBERT, saying he was still against the F–14.

So I called up to find out, and he said, "Just totally the opposite is true, and I will give you a letter to that effect," and he did.

He points out here in the letter, which I shall ask to have printed in the RECORD—quoting himself, Mr. HÉBERT, speaking in House debate—

> The amendment I am offering to strike the procurement authorization is not designed to jeopardize the ultimate decision on this aircraft. If circumstances in the future dictate the wisdom of going ahead with the procurement program, we will bring it back to the House for final resolution.

Now that has been completed. Mr. Packard has spoken, and in view of that, the Senate committee put this item in the bill, and this is our recommendation today. Mr. HÉBERT says now, in view of the Packard review and recommendation that his position is based on personal discussions with Secretary Packard and Secretary Laird, as well as the Secretary of the Navy and the Chief of Naval Operations. He says:

> In view of the circumstances and based upon my personal discussions with Secretary Packard and Secretary Laird, as well as Secretary of the Navy Chaffee and Chief of Naval Operations Zumwalt, I now have no reservations concerning this program and urge its approval by the Congress.

He goes on and says that he hopes to put it back in the bill in the Senate.

I ask unanimous consent that the entire letter from the chairman of the House Armed Services Committee be printed in the RECORD at this point.

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

U.S. HOUSE OF REPRESENTATIVES,
Washington, D.C., September 27, 1971.

Hon. JOHN C. STENNIS,
Chairman, Committee on Armed Services,
U.S. Senate,
Washington, D.C.

DEAR MR. CHAIRMAN: As you are aware, on June 16, 1971, during House debate on H.R. 8687, the FY 1972 Department of Defense Procurement Authorization Bill, I made a motion to strike from the procurement authorization the amount requested by the Department for the Navy's F–14 aircraft program.

At that time I explained to the members of the House the reason for the unusual action that was being taken by the Committee on Armed Services. The Record makes clear that the decision to strike from the bill $806.1 million desired by the Navy for the procurement of the F–14 aircraft resulted from the "departmental indecision on this program" which had surfaced just prior to the time the Committee's bill reached the floor of the House.

The Record of the House debate reflects a letter from Secretary of Defense Melvin Laird pointing out that a new intensive review and reassessment of the program was underway in the Department in order for the Secretariat to resolve questions which had arisen concerning the desirability of continuing the program.

These circumstances, therefore, resulted in the following statement which I made on the floor of the House:

"The amendment I am offering to strike the procurement authorization is not designed to jeopardize the ultimate decision on this aircraft. If circumstances in the future dictate the wisdom of going ahead with the procurement program, we will bring it back to the White House for final resolution."

Stated another way, since Deputy Secretary of Defense Packard had, on June 16, 1971, not been personally certain that the Navy should go forward with the F–14 aircraft procurement program, I felt that his "reservation" on the part of the Secretary required resolution before the Congress should act on authorizing a continuation of the program.

The indecision and the reservations formerly held by Deputy Secretary of Defense Packard concerning this program have now been resolved. I have discussed this matter with him personally and I have received a written communication from him which unequivocally and categorically recommends continuation of this program as requested by the Department for the FY 1972 procurement authorization.

I am including for your information and possible use a copy of this communication from Deputy Secretary of Defense Packard.

In view of these circumstances, and based upon my personal discussions with Secretary Packard and Secretary Laird, as well as Secretary of the Navy Chafee and Chief of Naval Operations Zumwalt, I now have no reservations concerning this program and urge its approval by the Congress.

I am hopeful that the Senate will concur in the action recommended by your Committee on this program so as to provide the House conferees with the opportunity to bring this program back to the House for its approval.

With best wishes and warmest personal regards.

Sincerely,

F. EDW. HÉBERT,
Chairman.

Mr. STENNIS. He, in turn, called on Mr. Packard, as I understand, as of September 27, this week, to ask whether his position was still the same, and he sent to me a copy of the letter he received from Mr. Packard. I ask unanimous consent that it be printed in the RECORD.

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

THE DEPUTY SECRETARY OF DEFENSE,
Washington, D.C., September 27, 1971.

Hon. F. EDWARD HÉBERT,
Chairman, House Armed Services Committee,
House of Representatives,
Washington, D.C.

DEAR MR. CHAIRMAN: As you are aware, the Navy signed a Fixed Price Incentive Contract with the Grumman Aerospace Corporation in February 1969 to procure F–14A aircraft. This contract contained options for seven lots of aircraft, with associated not-to-be-exceeded ceiling prices, to be procured through FY 75. The deadline date for the Navy to execute the option for a proposed buy of 48 Lot IV aircraft is 1 October 1971. Should the Navy not execute the option on 1 October future out year options would be voided and ceiling price limits would no longer apply.

At my direction the Navy has studied various alternatives to exercising the FY 72 Lot IV option for the minimum quantity of 48 airplanes. Any variation to buy less than 48 aircraft constitutes breaking the contract and will ultimately significantly increase the cost of the total buy of airplanes required for the Navy.

During hearings in July the Chairman of the Senate Armed Services Committee asked me whether or not Grumman would comply with their agreement if the requested FY 1972 budget were approved by the Congress. I want to inform you that Mr. L. J. Evans, Chairman of the Board of the Grumman Aerospace Corporation, notified me that Grumman would produce the 48 F–14A aircraft as presently configured at the contract price if the Department of Defense Fiscal Year 1972 program for the F–14 is authorized and funds are appropriated.

Secretary Chafee and Admiral Zumwalt are following this program closely to assure not only that mission needs are given proper priority but also that the development program confirms that these needs will be met. They have told me that the F–14A flight test

program is now proceeding very smoothly. Two aircraft are flying at Grumman and milestone tests completed satisfactorily to date include flying supersonic to Mach 1.2 and sweeping the wings to their full aft position at 68 degrees. Over 70 hours of flight test time have been accumulated as of 17 September. The test pilots are unanimous in their praise of the F-14's handling characteristics and indicate its landing characteristics are very comparable to the Navy's A-6, which after over 50,000 carrier landings has never suffered a carrier landing accident.

The development of the F-14A aircraft fire control system, designated the AWG-9, was commenced in 1963 for the F-111B. When the Navy stopped the F-111B program the AWG-9 was adapted to the F-14 as it emerged. The AWG-9 development is now essentially complete and the system recently underwent a Navy Preliminary Evaluation by the Navy crews at Pt. Mugu, California. Preliminary results indicate the system met the Navy's performance requirements and will be ready for production next year.

The development of the Phoenix Missile was also commenced in 1963 and the Navy reports indicate that its test program is proceeding smoothly. The Navy's test shots of the Phoenix to date give us high confidence that it will give the Fleet a much needed long range missile capability.

The current Navy fighter inventory contains the F-8 Crusader and the F-4 Phantom, designs originated more than 15 years ago. The F-4 has a fine record, but regretfully she is old and has gone beyond the point that we can improve her performance sufficiently to fulfill the Navy's requirements in the 1975-85 time frame against the emerging threat of numerous new and more sophisticated Soviet aircraft. A thorough study revealed that we couldn't put the Phoenix system in the F-4 without getting into an unsatisfactory program. The F-14A weapon system is new, takes advantage of the many technological advances in airframe, electronics, and power plant design made in the interim period since the F-4. Based on the information provided by Secretary Chafee and Admiral Zumwalt I am convinced that the F-14 is superior to the F-4 in every performance category that is essential to the Navy mission. The F-14/AWG-9/Phoenix missile is the only complete all-weather weapon system available that will meet the various sophisticated, high performance threats, and that will satisfy the Navy's requirements.

In summary, the Navy F-14A Fighter Program is achieving the goals that were set three years ago. An advanced Soviet fighter, bomber and missile threat was clearly emerging at that time. Subsequent events have validated the Navy's concern that the Soviets are embarked on an ambitious program to wrest control to the seas from the free world. There is no other U.S. aircraft in inventory or under development which can meet the totality of the Navy's need for sea control and force projection. This is a most important program for the Navy and for the entire Defense program as well. I urge your support. You may be sure that the Department will keep Congress informed of the progress of the F-14 program.

It is hoped that the above information will be a useful update to you and your staff. The Navy Staff will be pleased to provide any additional details of the F-14 program as you may desire.

Sincerely,

DAVID PACKARD.

Mr. STENNIS. Mr. President, let me pause here. Mr. Packard knows a lot about what he is doing, and I am one of many on our committee who takes very seriously what he says and what he does. These things have tremendous weight, and we rely on him. He is an independent type of fellow, and based upon his knowledge, his inquiry, and his conclusions, we put this in the bill with our strong recommendation.

The PRESIDING OFFICER. The Senator's 5 minutes have expired.

Mr. STENNIS. I yield myself 2 more minutes.

I have here a letter from Admiral Zumwalt. He refers to various things, and he says this about the F-14A:

Relative to the F-4J, the F-14A is:

Fifty percent better in acceleration time from Mach .8 to Mach 1.8 at 35,000 feet altitude;

Fifteen to 55 percent better in combat rate of climb with realistic weapon loadings for various altitude Mach-number combinations;

Forty-five percent better in roll effectiveness;

One hundred percent longer in radar range.

Mr. President, those are things that mean something:

Twenty-five percent longer combat radius even when the F-4 is using a 600 gal. external tank. When both aircraft are compared using only internal fuel capacity, the F-14A has 75% longer combat radius.

I ask unanimous consent that the letter be printed in the RECORD.

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

CHIEF OF NAVAL OPERATIONS,
September 27, 1971.

Hon. JOHN C. STENNIS,
Chairman, Committee on Armed Services,
U.S. Senate,
Washington, D.C.

DEAR SENATOR STENNIS: In the last few days a considerable amount of inaccurate information has appeared concerning the F-14 aircraft and its Phoenix missile system. I would like to take this opportunity to correct the record.

Since the allegation has been made that the F-14A is an inferior airplane, I would like to emphasize at the outset that all performance figures used in this letter apply to the F-14A, that is, the F-14 equipped with the proven TF-30 engine, rather than the F-14B, which will utilize the so-called advanced technology engine.

Analyses consistently show the F-14A will be significantly superior to the F-4. This superiority derives from an advanced weapon control system as well as better speed, acceleration, maneuverability, range, and all round higher performance. Its excellent handling characteristics also make it superior to the F-4 in aircraft carrier suitability. These characteristics, combined with a more versatile air-to-air weapons suite composed of Phoenix, Sparrow, Sidewinder and internal cannon, provide a clear cut margin of superiority over the most advanced Soviet fighter.

Relieve to the F-J, the F-14A is:

50 percent better in acceleration time from Mach .8 to Mach 1.8 at 35,000 feet altitude;

15 to 55 percent better in combat rate of climb with realistic weapon loadings for various altitude Mach-number combinations;

45 percent better in roll effectiveness;

100 percent longer in radar range;

25 percent longer combat radius even when the F-4 is using a 600 gal. external tank. When both aircraft are compared using only internal fuel capacity, the F-14A has 75% longer combat radius.

Twenty-five percent longer combat radius even when the F-4 is using a 600 gal. external tank. When both aircraft are compared using only internal fuel capacity, the F-14A has 75% longer combat radius.

Contrary to several recent public statements, the superior maneuverability of the F-14 makes it better in a dogfight than a slatted F-4. This is mainly the result of the F-14's 40% better turn radius than the slatted F-4.

Contrary to some recent allegations, the Phoenix missile to date has demonstrated all major design performance requirements. The Navy and the contractors have taken action to correct all problems identified during the development process.

The Navy has studied many alternatives to the F-14 including the possibility of using a Phoenix configured A6. We found that the A6-Phoenix was markedly inferior to the F-14-Phoenix combination and was completely inadequate in the other fighter roles in which the versatile F-14 is designed to perform.

The much higher effectiveness to be realized from the F-14A is indeed encouraging—a level of performance sorely needed in our fleet today. I am pleased to tell you that the F-14A engine and the weapon control system are exceeding all specified performance.

In summary, I am convinced that loss of the opportunity to acquire the F-14A in a timely manner will cost us the capability to control and use the seas.

Warm regards,

E. R. ZUMWALT, Jr.,
Admiral, U.S. Navy.

Mr. STENNIS. That letter, as I say, is signed by the Chief of Naval Operations of the Navy, who is certainly an officer of fine attainments, based upon his knowledge and that of his fellow officers in the Navy, men that we have entrusted with the responsibility of making judgments on our security.

You are not going to find a perfect plane. This one is not. You will not find a perfect missile. The Harrier is not. But it is 15 years ahead of anything else we have. Knock this out of the bill, and we will have to take 10 years on a new start to get back where we are now.

Mr. President, I yield the floor.

Mr. PROXMIRE. Mr. President, I yield 10 minutes to the Senator from Indiana.

Mr. HARTKE. Mr. President, my personal involvement with the F-14 dates back to mid-1969 and the military procurement debate of that year. It was my opinion then that the multi-mission resposibilities of the F-14 merely guaranteed that none of its missions would be performed well.

Based on this current reexamination of the F-14, I am even more convinced that it is the wrong plane for the Navy.

Our modern technology has allowed us to combine all of the functions of an air-superiority fighter and a fleet-defense interceptor into a single plane—the F-14. But of necessity this most sophisticated of planes has proven to be both exorbitantly expensive and extraordinarily complicated. More importantly, any enemy who has a similar technology can build single-mission planes which would be superior in every way to the multimission F-14.

This is so, because the attack capability of the F-14 is severely compromised by the "designed in" requirement that it also plan a fleet defense role. Thus, the ability of the F-14 to fulfill its air-superiority mission in conflicts where no threat to the safety of the fleet is evidenced, is diminished insofar as its design has been keyed to fleet air defense. It should be clearly understood that the

primary design requirement of this plane is the ability to carry six 1,000-pound Phoenix missiles which have but one purpose: fleet defense. The resulting size, weight, and configuration have clearly compromised its capabilities as a fighter.

On May 11, 1971, Representative BINGHAM and I issued a report under the auspices of the Members of Congress for peace through law which points out in considerable detail what we consider to be the inherent failings of this aircraft. It was our conclusion that it would be best to admit that the attempt to combine the functions of an air-superiority fighter, and fleet-defense interceptor in one plane had failed. The F–14's lack of maneuverability, attributable to its excessive weight—58,000 pounds fully loaded at takeoff—and an under-powered engine, severely hinder its air superiority role; while the proven unreliability of its Phoenix missile system made it doubtful that it could successfully perform its fleet defense role in the face of a concerted air and sea attack.

The deficiencies of the Phoenix system merited particular attention in our report, wherein we stated:

The Phoenix, according to the Navy, will "provide the F–14 aircraft with its primary fleet air defense capability." Our analysis of the Phoenix program, however, suggests its capabilities are limited and that its limitations are strikingly similar to those which argue so persuasively, in our view, against deployment of an ABM system.

Like the ABM, the Phoenix seems incapable of accomplishing the mission assigned to it, even if it performs entirely up to expectations. While details of its operation are scarce, there is no evidence that it is capable of neutralizing any more than, at best, a small group of closely clustered targets. With that capability, carrier-based F–14s, each carrying six Phoenix missiles, might be able to defend against a moderately heavy enemy attack. A saturation attack, however, particularly one involving large numbers of heavy cruise missiles and accompanying enemy decoys, would surely penetrate Phoenix defenses. The carrier fleet, therefore, remains extremely vulnerable to determined attack, and no defense missile system of the Phoenix type can be depended upon realistically.

The threat for which Phoenix might be effective—to protect carriers and accompanying ships from enemy bombers—simply has not materialized and does not now exist.

The cost of the Phoenix system is extremely heavy in both dollars and restrictions it imposes on the F–14 to perform missions other than fleet defense. Reliable estimates of the per unit cost of the Phoenix range from $200,000—to $800,000—and about ten times that of the most sophisticated airborne missile we currently possess, the Sparrow. Based on a compromise estimate of $400,000 per Phoenix, it would cost $2.4 million to outfit each F–14 with the Phoenix. If even half of the 301 F–14s the Navy proposes to buy in the foreseeable future are outfitted with the Phoenix, just the initial Phoenix procurement cost would be well over $400-million. The estimated cost of the Phoenix program just through 1977 is estimated at $1.502-billion.

The Navy próposes that to relieve F–14s of extra weight and drag should they unexpectedly encounter situations where close-in combat may occur, they would simply jetitison the Phoenix components—a startling proposal in view of the extremely high cost of these missiles.

The defects in the Phoenix made questionable any further expenditures for the F–14 program, and was a decisive factor in our recommendation that the entire F–14 program be terminated.

It was also recommended, in accord with the amendments to be considered this afternoon, that a light, prototype fighter be developed by the Navy to meet the challenge posed by new Soviet fighters.

Mr. President, I ask unanimous consent that the full text of this MCPI study, including the other recommendations made by it be included in the RECORD at this point.

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

REPORT ON THE F–14 AND F–15 TACTICAL FIGHTERS

(By Senator VANCE HARTKE and Congressman JONATHAN BINGHAM)

RECOMMENDATIONS

1. Terminate immediately all further production of the "A" version of the Navy's F–14 due to cost uncertainties and delays in operational availability. The Administration has requested $806-million for procurement of 48 more F–14As in FY 1972. We recommend no further procurement funds be authorized or appropriated.

2. Termination further development and production of the Phoenix fleet defense missile due to high cost and insufficient capability for fleet defense against saturation attacks by decoyed surface-to-surface and air-to-surface missiles. The Administration has requested $104-million for procurement of a classified number of these "terribly expensive" (Admiral Connelly) missiles. We recommend this entire procurement request be rejected and the Phoenix program terminated.

3. Authorize funds for purchase of an adequate number of F–4Ms (currently being sold to the British) or other advanced version of the F–4 to meet immediate needs for high performance air superiority aircraft until a more cost-effective new aircraft can be developed and made operational. Initially, this purchase should equal at least the planned FY 1972 purchase of F–14As—48 aircraft. The purchase price of the F–4M is approximately $6.5-million. We recommend, therefore, authorization of $312-million for this purpose.

4. Undertake immediate high-level studies to determine what further improvements could be made in the highly successful and flexible F–4 through design modifications at moderate cost to improve the capabilities of this aircraft to meet tactical air force requirements for the latter half of the 1970's and beyond.

5. Terminate further development of the F–14B and F–14C due to the low performance capabilities of these aircraft without the Phoenix missile relative to their high cost. The FY 1972 Administration request for the F–14B is $228-million. We recommend it be rejected and the contract terminated.

(An alternative to this course of action, in view of some evidence that the F–14B might prove cost-effective even without the Phoenix in performing missions other than fleet air defense, would be to continue R & D for the "B", but withhold any procurement unless and until the aircraft proved superior to the F–4M or other improved version of the F–4 based on, among other considerations, a "fly-off" competition. In effect, this would bring the F–14 program under a competitive "fly-before-buy" policy. If this alternative is followed, the full R & D request for the F–14 program for FY 1972 of $228-million should be approved, and the F–14 contract renegotiated to include the competitive "fly-before-buy" condition for procurement.)

6. Continue R & D on the Air Force's F–15 at requested (or slightly increased) levels despite evidence that the very high cost of this airplane may not be justifiable by its performance projections. At the same time, however, designs should be requested and funds authorized for development of a light, highly maneuverable fighter of the FX–X type (to meet the MIG–23 threat) that could be "brought in" at a cost significantly below that of the F–14. The Administration has requested $415-million for F–15 R & D. We recommend approval of that request. In addition, we recommend authorization of an appropriate sum (no more than $50-million in FY 1972) in RDT & E funds for Contract Definition and initial development of a lower-cost light fighter for possible use in combination with, or as a substitute for, the F–15.

7. Require Defense officials to provide Congress on a continuing basis with detailed tactical air force size, structure, and cost alternatives and rationale extending at least ten years into the future.

Pursuit of the recommendations of this report would effect immediate (FY 1972) savings ranging from $538-million to $776-million. Longer range savings, while difficult to calculate precisely, would certainly be many times these immediate savings, and could range in the neighborhood of $25-billion. Ten-year "systems costs" of the F–14 have been reliably estimated at between $20-billion and $30–billion. Accepting a compromise figure for full projected procurement (722 aircraft) and related costs of $25-billion, should an improved version of the F–4 be found sufficiently cost-effective to replace the F–14, the ten years savings could be as high as $12.5-billion. In addition, this would result in a saving of at least $1-billion, and perhaps as much as $4-billion, in Phoenix system costs.

Long-range system costs of the F–15 program are even more speculative than those relating to the F–14. However, savings resulting from total or substantial substitution of a light fighter for the planned purchase of 737 F–15's would produce savings near those effected in the case of the F–14.

TACTICAL AIR MISSIONS

Any combination of four major missions can be assigned to tactical aircraft. Although tactical aircraft are designed for use in conventional (non-nuclear) conflicts, they can also be used in tactical nuclear strikes.

1. *Close-Air Support.* Tactical aircraft provide close-support to troops engaged with enemy land forces. This mission is especially important in Europe where the Warsaw Pact has extensive armored forces. Close-support strikes prevent troops from massing, armored vehicles from breaking through lines, and friendly troops from being overrun. Large loiter and payload capabilities are important characteristics for aircraft used in close-support. In addition, survivability against ground fire is important.

2. *Interdiction.* Interdiction missions are of two kinds—battlefield interdiction and deep interdiction. When tactical aircraft strike supply concentrations, vehicles and lines of communication in the vicinity of the front, these attacks are called battlefield interdiction. Such attacks disrupt troop and armored column movement and prevent the enemy from stockpiling supplies near front lines. Deep interdiction missions, on the other hand, aim at reducing the flow of troops and supplies to the front by striking far behind enemy lines at communications and industrial facilities. These deep strikes have a less immediate effect on enemy troops at the front than close support or battlefield interdiction due to the availability of optional lines of communication and to the short repair-reconstitution times for roads, bridges, factories, etc. In addition, losses on deep interdiction strikes tend to be higher because of the higher density of enemy anti-aircraft missiles, artillery, and interceptors.

3. *Air Superiority.* Tactical fighters are employed to protect ground attacks by escorting strike aircraft, by flying protective cover (combat air patrol) or by sweeping the front before strike aircraft arrive. In view of the large number of interceptors in Pact and North Korean tactical air forces, this is likely to be our highest priority mission in the event of war. Air superiority missions require an aircraft with high concentration, low wing-loading (wing-loading is determined by the ratio of aircraft weight to wing area; wings must be large enough for stability in turns, but small enough to minimize drag), good control response and good visibility from the cockpit.

4. *Airbase Defense Interception.* Fighters are also used for point defense of airbases and infrastructure. Navy fighters fly fleet air defense missions to protect the carrier and its task force from enemy bombers and cruise missiles. Assuming the carrier survives, these same fighters must be able to fly air superiority missions, and particularly to escort the carrier's attack aircraft against their targets. High speed dash, long loiter time, and a long-range missile/fire control system are important capabilities for successful performance of the fleet air defense mission.

TOTAL TACTICAL FORCE STRUCTURE

Secretary of Defense has announced that FY 1972 will be a period of "continued reduction" of our active fighter and attack forces, and that efforts are underway to find ways to "reorient (these) forces over the 1973–77 period" in order to achieve "more flexible tactical air forces in the future." As the following chart indicates, our total active fighter and attack forces will have dropped from about 5000 aircraft in 1970 to a projected 4020 by the close of FY 1972:

ACTIVE FIGHTER AND ATTACK AIRCRAFT (1970–72)

	Fiscal year 1970	Fiscal year 1971	Fiscal year 1972
Total aircraft	5,000	4,600	4,020
Total wings	39	36	45
Navy wings	13	12	11
Air Force wings	23	21	21
Marine Corps wings	3	3	3

Sources: 1970–72 Defense Budget and Defense: Program Statements, Clark M. Clifford and Melvin R. Laird.

No detailed reason or rationale for this reduction has been provided by the Department of Defense in terms of expected future military contingencies. In general, in fact, the Congress is provided with insufficient information on long-range projections of tactical aircraft needs, costs, and alternatives. We recommend that the Congress require such detailed information, including the implications of all proposed new aircraft on force size and structure, on a continuing basis.

The only apparent reason for the current reduction in total tactical air forces is the imminent modernization of these forces. This modernization is projected to be accomplished primarily by the planned introduction of the Navy's new F–14 fleet air defense and general purpose fighter.

We recognized the need for modernization and improvement of our tactical air force to meet expanded capabilities on the part of potential enemies. However, both the F–14 and F–15 will cost several times more than the aircraft they are scheduled to replace (primarily the F–4 Phantom). As far as we are able to determine, no lower-cost options for tactical air force modernization are currently under active consideration.

In our view, exclusive pursuit of high-cost options may require us in the future either to increase our expenditures on tactical air forces beyond desired or necessary budget restraints, or to purchase only an insufficient number of new aircraft in order to stay within such budgetary restraints. To avoid this dilemma, we favor keeping low-cost options for tactical air force modernization open as long as possible. A number of our specific recommendations point to such low-cost options.

THE NAVY F–14

In 1968, the Congress killed the ill-fated Navy F–111B and authorized in its place development of a new multi-mission fighter, the F–14. Designed to provide fleet air defense, air superiority and air-to-ground capability, the F–14 is anticipated to replace the F–4 Phantom as the Navy's chief tactical fighter by the mid-1970's.

Grumman Aerospace Corporation received the contract for development of the first version of the plane, the F–14A, in February of 1969. The F–14A makes maximum use of technology gained during the development and test program of the F–111B by incorporating the Pratt & Whitney TF–30/P–412 engine and the Phoenix air-to-air missile system originally intended for use in the F–111B. In addition, the avionics system of the F–111B has been redesigned for tandem seating and for fire control use of the existing Sparrow and Sidewinder missiles. The airframe of the F–14A uses titanium as a weight-saving device in an attempt to optimize, to the extent other missions permit, maneuverability in "dogfight" situations. The F–14A also has the design capability to carry one or more weapons systems in varying combinations depending on its mission.

The second model in the F–14 series, the F–14B, is to be equipped with advanced technology, high thrust engines presently being developed by Pratt & Whitney for testing in June, 1972. Target date for operational "B" engines is December, 1973. F–14As are then to be retrofitted with "B" engines, supposedly at minimum cost since the F–14A airframe has been designed with the new engines in mind.

The F–14C, expected in the late 1970's, will have improved avionics. Even if the Navy and Marine Corps should somehow find the resources to replace over 1,000 F–4s with F–14s, the unit cost of the F–14 under the most optimistic assumptions, will be at least three times that of the F–4. Buys of fewer F–14s would mean still higher unit costs. To date, 38 "A"s have been procured. The Navy is requesting funds to procure 48 more in FY 1972, for a total of 86 aircraft.

Twelve of the "A"s already procured are test aircraft, the first of which crashed in its second test flight due to malfunction of the plane's primary and backup hydraulic systems. This will delay the operational date for the "A" by six months or more. The estimated earliest operational date is now regarded to be early 1974. The F–14B is projected to become operational in January, 1975, although some experts believe the "B" can be operational by the end of 1974 in view of reports that development of its new Pratt and Whitney engine is proceeding smoothly and slightly ahead of schedule.

As a result of the test complications, as well as generally rising costs, an increase in the cost of the F–14 has been widely rumored. Such an increase will necessitate either a renegotiation of the F–14 contract or purchase of fewer planes.

The latest "unit flyway" cost of the F–14 before the crash of the test model and the cost increase rumors was $11.5-million. More recent estimates have ranged as high as $15-million per copy.

Regardless of any other actions that may be taken on the F–14 program, the delays that have been encountered in development of the F–14A following the crash of the first test model, the uncertain but increasing cost of the aircraft, and the progress that is reportedly being made in readying the new Pratt and Whitney engine suggest that no more F–14As be purchased. The gap between the projected operational date of the F–14A and the estimated operational date of the first F–14B is now less than a year. This means that all F–14As will have to be refitted, at great expense, with new engines hardly more than a year after they are first flown.

The entire justification for the F–14A was to provide the Navy with a plane to meet the growing Soviet challenge several years before the F–14B would become operational. That rationale no longer exists. Furthermore, many of the performance characteristics of the F–14A are inferior both to the Soviet MIG–21 and such currently available Western aircraft as the F–4M which McDonnell-Douglas is selling to Great Britain. The Navy itself, for example, has predicted that the F–14A would have only about a 2% speed advantage over the Soviet MIG–21—hardly enough of a capability improvement to justify the $806-million requested to purchase more of the "AA"s in 1972.

We therefore recommend termination of the F–14A and the purchase of an appropriate number of F–4M's or other late versions of the F–4 to meet the immediate needs of the Navy for high performance fighters.

* * * * *

The Phoenix missile is a long-range, air-air defensive missile system. Six missiles can be mounted on each F–14. Development of the Phoenix began in December, 1962, with the letting of a contract to Hughes Aircraft Company. The program, at that time, was keyed to development of the first F–111B fleet squadron in February, 1969. With cancellation of the F–111B the Phoenix program was reoriented to the F–14As requirements and schedule.

The Navy reports that the Phoenix will be capable of destroying "multiple targets in a heavy electronic countermeasure environment under all weather conditions." Simultaneous launch against a classified number of targets is reported to be possible. But simultaneous firing in flight from the F–14 has not been tested, and there is continuing skepticism over whether the F–14 air frame is substantial enough to permit such firings.

Research and development firings of the Phoenix completed as of March, 1970, achieved 20 successes in 27 tests, and the Navy currently reports that final testing of the missile is now near completion.

The Phoenix, according to the Navy, will "provide the F–14 aircraft with its primary fleet air defense capability." Our analysis of the Phoenix program, however, suggests its capabilities are limited and that its limitations are strikingly similar to those which argue so persuasively, in our view, against deployment of an ABM system.

Like the ABM, the Phoenix seems incapable of accomplishing the mission assigned to it, even if it performs entirely up to expectations. While details of its operation are scarce, there is no evidence that it is capable of neutralizing any more than, at best, a small group of closely clustered targets. With that capability, carrier-based F–14s, each carrying six Phoenix missiles, might be able to defend against a moderately heavy enemy attack. A saturation attack, however, particularly one involving large numbers of heavy cruise missiles and accompanying enemy decoys, would surely penetrate Phoenix defenses. The carrier fleet, therefore, remains extremely vulnerable to determined attack, and no defense missile system of the Phoenix type can be depended upon realistically to erase that vulnerability.

The threat for which Phoenix might be effective—to protect carriers and accompanying ships from enemy bombers—simply has not materialized and does not now exist.

The cost of the Phoenix system is extremely heavy in both dollars and restrictions it im-

poses of the F–14 to perform missions other than fleet defense. Reliable estimates of the per unit cost of the Phoenix range from $200,000—to $800,000—about ten times that of the most sophisticated airborne missile we currently possess, the Sparrow. Based on a compromise estimate of $400,000 per Phoenix, it would cost $2.4-million to outfit each F–14 with the Phoenix. If even half of the 722 F–14s the Navy proposes to buy in the foreseeable future are outfitted with the Phoenix, just the initial Phoenix procurement cost would be well over $800-million. The estimated cost of the Phoenix program just through 1977 is estimated at $1.502-billion.

The Navy proposes that to relieve F–14s of extra weight and drag should they unexpectedly encounter situations where close-in combat may occur, they would simply jettison the Phoenix components—a startling proposal in view of the extremely high cost of these missiles.

Most of the training of F–14 pilots will necessarily focus on the close-in combat contingency, which requires the most sophisticated skills on the part of the crew. In view of this emphasis in their training, F–14 pilots will consider themselves primarily "fighter pilots." There is already considerable evidence that fighter pilots tend to resent and distrust long-range missiles which cut down the close-in combat capability of their aircraft. F–14 pilots, therefore, must be expected to jettison the Phoenix with little prospect of a dogfight, raising further serious questions about the feasibility of maintaining the Phoenix system from a cost point of view.

The Navy has noted that the Phoenix missiles and the pallets on which they are carried can be removed, giving the F–14 the flexibility to fly with or without the extra weight of the missiles depending upon the immediate mission assigned. Indications are, however, that the process of removing and replacing the missile pallets may be considerably more complicated and time-consuming than originally anticipated, thereby reducing the airplane's general flight readiness, and increasing its service time and cost.

On the basis of these very basic problems, it is our conclusion that the Phoenix system, like the ABM, offers minimal dependable security payoffs--at extremely high cost, and that despite the considerable sums we already have invested in it, the sooner we abandon it the better. We therefore recommend determination of the Phoenix program at the first opportunity.

The dual mission capability of the F–14 has been consistently stressed by the Navy. Gradually, however, the fleet air defense mission of the aircraft seems to have been superceded by its air superiority role. This impression is gained from testimony by the Navy during hearings before various Congressional Committees. An undated Naval Air Systems Command memorandum states that "First, and perhaps foremost, the F–14 is being designed as a Navy fighter, to meet Navy needs, and operate in a Navy environment." Reliable trade journals have reported such a trend. Electronic News, for example, noted a "switch from emphasis on fleet air defense to air superiority."

The F–14, like the F111–B which it closely resembles, was largely designed around the Phoenix, with fleet air defense as its primary mission. Cancellation of the Phoenix, therefore, calls into question the advisability of completing the remainder of the F–14 series.

Relieved of the Phoenix and the fleet defense mission, the primary mission of the F–14 would presumably become air superiority—a mission which, as noted earlier, seems to have become predominant in the priorities of defense experts since the F–14 was designed. Whether the F–14B and C should be continued without the Phoenix hinges on the alternatives available to meet admitted immediate need for an improved air superiority fighter to counter the MIG–21 and, ultimately, the MIG–23 (Foxbat).

Our examination suggests that the F–4M, or an even more advanced F–4 that might emerge from development efforts between now and 1974 (when the F–14B is scheduled to become available), would be superior to the F–14B and C (stripped of the Phoenix) in carrying out the three remaining tactical aircraft missions, and that such an aircraft could be purchased at considerably less cost than the F–14.

The F–4M possesses engine thrust variously rated at 21,500 lbs. (Air Force and Space Digest) and 20,500 lbs. (manufacturer's rating). The Pratt-Whitney TF–30–P–12 turbofan engine being developed for the F–14B is estimated to provide 28,000 lbs. thrust. But the estimated top operating speed of the F–14B is Mach 2.5, while the F–14M is already believed to be operating in the Mach 2.5–2.8 range. In these important respects, the F–4M compares favorably with the F–14B, and has the advantage of being already operational and available at a cost about one-half that of the estimated cost of the F–14B.

We feel that these facts alone offer ample evidence that an adequate aircraft is available at lower cost than the F–14B, and that the F–14B and the rest of the F–14 program should be terminated now in favor of the F–4M and further improvements on the F–4. We so recommend.

As an alternative to this recommendation, research and development on the F–14B could be continued in order that a "fly-off" between the F–14B and the most advanced version of the F–4 then available could be held to determine which plane the Navy would buy. This alternative is justified by the fact that, although the estimates of the performance of the F–14B are slightly inferior to those of the F–4M and its cost higher, the F–14B does offer some design improvements over the F–4M for closein combat, including better placement of engines for survivability and better location of pilots (tandem) for visibility.

Whichever of these alternatives might be followed, a high-level study should be launched and development funds made available to determine what other modifications might be made in the F–4 to further improve its capabilities. The F–4 is the most successful and flexible aircraft ever developed by our Armed Forces, and there is some evidence that the Navy, in its determination to develop a fleet defense capability through the F–111 and then to combine fleet defense with air superiority in the F–14, may have seriously understated or ignored the potential of the F–4 to be modified at relatively low cost, thereby achieving even greater capability. Another look should be taken at the F–4 before any major procurement commitment is made on the F–14B.

THE AIR FORCE F–15

The Air Force F–15 is strikingly similar in design to the F–111. Like the F–14, it draws heavily upon the technology gained during the F–111's development. Although powered by the same Pratt & Whitney advanced technology engine designed for the F–14B, it will be some 12,000 pounds lighter. This difference in weight can be attributed to the single mission responsibility (air superiority) of the F–15 in contrast to the multi-mission duties imposed on the F–14. The F–15 will not carry the Phoenix missile or the missile's weighty avionics. Rather, it is anticipated that the F–15 will fulfill its air superiority role through sophisticated stand-off missile capability.

The design of the F–15 reportedly corrects major deficiencies on the F–4 design for close-in visual combat which were discovered through combat experience with MIG–21s in Southeast Asia. For example, it has improved wing loading, acceleration, thrust-to-weight, visibility, fuel, and handling qualities.

Despite recent changes in the development of the aircraft to reduce cost, the F–15 is now anticipated to "come in" at an even higher price than the F–14. Furthermore, valid questions remain about whether the F–15s dependence on "stand-off" capability is sufficient to make it a match for the "Foxbat." Should its "stand-off" weapons fail and should it be forced to close-in visual combat by an enemy aircraft such as the MIG–23, it is questionable whether the F–15 would have the speed and maneuverability to survive.

Nevertheless, a much better case can be made for a sophisticated "stand-off" capability in the F–15 than could be made for the "fleet air defense" capability in the F–14. Inclusion of the improved "stand-off" weapons and avionics has not added excessively to the weight of the aircraft. No effort has been made to make it a multiple-mission plane.

We therefore recommend continued funding for R & D on the F–15 at requested levels. We recommend, also, however, simultaneous development of a light, lower-cost version of the F–15 or an entirely new light fighter of the FX–X type. Such an alternative fighter should be designed for maximum speed and maneuverability at a cost between that of the F–4 and the F–15. A light fighter would provide a needed option to the F–15 in the event future budgetary restraints restrict the number of F–15s we can afford to buy, or in the event the "stand-off" capability of the F–15 proves inadequate to counter enemy fighters and greater emphasis on speed and agility is required.

Mr. HARTKE. Since this examination of the F–14 by the MCPL, additional data has been brought to light, indicating that the criticisms of that study was, if anything, too mild.

Using the latest data available to us in May of this year, Representative BINGHAM and I set the per plane cost of the F–14 at at least $15 million. This estimate has already been outdated, however, by the findings of a GAO study commissioned by the distinguished Senator from Wisconsin (Mr. PROXMIRE) which put the per copy cost at $16.7 million. On September 5, 1969, I disclosed in a speech on the Senate floor that the then Office of Systems Analysis in the Pentagon had set the eventual production cost of the plane at $19 million. Office of System Analysis reached this conclusion in a letter to the Secretary of Defense. At that time I requested that this letter be released and made part of the public debate on this vital issue but to the best of my knowledge this was never done. At the same time I expressed my belief that the Senate should be given free access to a development concept paper, known as DCP–19, which spoke to the limitations of the F–14 as an air superiority fighter. This document, a study of the options for improving our air combat strength, apparently arrived at the candid conclusion that the F–14 would be generally inferior in air combat performance to the F–4 Phantom. The Pentagon has never honored my request for its release. Nor did the Pentagon honor yet another request made in September 1969, for access to a major programs memorandum, dated June 4, 1969, and sent to the Joint Chiefs of Staff, known as the MPM on tactical air, which suggested strict budget guidelines for program expenditures and specified the mission of tactical airpower in terms of the following important ca-

pabilities: air-to-air visual contact, and close air support, with emphasis on anti-armor ability.

Mr. President, it was my belief in 1969, that all the items I have mentioned were vital to the Senate's consideration of the Military Procurement Act of that year. Subsequent events have only served to reinforce my opinion that my prior opposition to this project was well founded, and the refusal of the Pentagon to share fully with the Senate its substantial doubts about the future of the F–14 inexcusable. I ask unanimous consent that a copy of the speech to which I have referred be placed in the RECORD at this point.

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

DOUBTS ABOUT THE F–14 AT THE PENTAGON

Mr. President, more than two weeks ago, on August 13, I asked the Secretary of Defense to release a study which challenges some of the assumptions behind the Navy's request for a new fighter plane, the $25 billion F–14. That study, a cost-comparison between land and sea based airpower, has not yet been released; I have been advised only that the matter is "receiving attention".

The fact is, of course, that doubts and questions surrounding the F–14 have been receiving a considerable amount of attention lately, especially inside the Pentagon. Despite the efforts of top Navy officials to stifle dissent, objections to the F–14 continue to be heard from the Office of the Secretary of Defense and from inside the Navy itself. As the Senate prepares to pass judgment on a new authorization request for the F–14, we should not be misled by official statements which try to hide or obscure these internal objections. In keeping with my promise to continue discussion of the F–14 until all relevant information has been made available, I will list some of these internal objections, and renew my request that they be made a part of the public debate.

First, I believe that the Senate should be given free access to a Development Concept Paper, known as DCP 19, which clarifies the limitations of the F–14 as an air superiority fighter. This document, a study of the options for improving our air combat strength, apparently makes the candid judgment that the early models of the F–14 will be generally inferior in air combat performance to the F–4, a much older and much cheaper plane which the Navy is using today. Former Secretary of the Navy Paul Ignatius also used the word "comparable" in judging the fighter capabilities of these two aircraft, in his testimony before the Mahon Committee last year. Before we accept the claim that the F–14 will be a "superior fighter," I believe that this revealing Development Concept Paper should be made available to the Senate.

Second, I am requesting release of cost estimates on the F–14 which were recently made in the Office of Systems Analysis in the Department of Defense, and which were contained in a recent letter from that office to the Secretary of Defense. These estimates, as I understand, range high above official Navy estimates, and even exceed some of the highest unofficial estimates which we have seen. Steadily rising costs, of course, have characterized the F–14 program since its inception. When the F–111B was cancelled in favor of the F–14 in 1968, partly because of rising costs, Secretary of the Navy Ignatius said that the costs of the new plane "are expected to be essentially the same as those required to complete the F–111B program." Since that time the Navy has admitted to unit costs for the F–14 that range from four to six million dollars higher than those for the F–111B. More recently, two of my Senate colleagues, Senator Stennis and Senator Cannon, have judged that the unit cost of the F–14 will go as high as $15 million per copy. The Office of Systems Analysis letter to which I have referred puts the total cost per plane even higher—closer to the $19 million range. In light of the fact that the F–4 costs us only about $3 million per copy, I find it incredible that the Navy plans to replace the F–4 with a "comparable" fighter which will cost at least five times as much.

Third, I feel that the Senate should be told about a Major Programs Memorandum, dated June 4, 1969, to the Joint Chiefs of Staff, recently issued from the Office of the Secretary of Defense. This internal document, known as the MPM on Tactical Air, suggests strict budget guidelines for program expenditures and specifies the mission of tactical airpower in terms of these important capabilities: air to air visual combat, and close air support, with emphasis on anti-armor. Since the F–14 is designed for none of these purposes, but instead to counter a dubious Soviet bomber threat with radar missiles, it is not surprising that top Navy officials have objected to the MPM and have tried to exclude it from the public debate over the F–14. Since I believe that both economy and mission requirements are important aspects of our debate, I ask that the MPM on Tactical Air be made available to the members of the United States Senate.

Fourth, and along the same lines, I feel that the Senate should know more about another aircraft design which would be better suited to perform these important tactical air-power missions. Accordingly, I am asking that a study conducted in the Office of the Secretary of Defense, known as the FX–X study, be made available to the Senate. The title of this study, "Feasibility Study of Alternative High-Performance/Low Cost Fighter Designs—FX–X and VFX–X", tells us something about its content. It suggests building a genuine air superiority fighter—cheaper, faster, and better suited to the needs of the Navy than the high cost, low-performance, hybrid design F–14. The unit cost of the proposed FX–X, according to this study, would be a mere $3.2 million. Since this study presents important options and discusses serious alternatives to the F–14 program, and since those options and alternatives have not been adequately discussed in public until now, I ask that this feasibility study be released to the United States Senate.

Fifth, and again with reference to the need for alternative designs to the F–14, I believe that the Senate debate on tactical airpower should not ignore the expressed desires of the fighter pilots themselves, who are uniquely qualified to evaluate aircraft capabilities from a practical perspective. Accordingly, I am requesting that the proceedings of the Navy Fighter Pilot's Symposium, held for the last three summers in Coronado, California, be released to the Senate. At these meetings, dissatisfaction among Navy pilots with the F–14 became such an embarrassment to the top Navy brass that tight restrictions were placed on all public comment with regard to the substance of the discussions that took place. But such widespread dissatisfaction at the operational level cannot be completely suppressed, and strong evidence of internal dissent continues to be heard. An unsigned letter from a Navy combat pilot in a recent issue of Aviation Week magazine typifies this dissent. This concerned Navy pilot likens the F–14 to the disastrous F–111B, as "another obese aircraft with a multi-million dollar price tag, flapping wings, and a back seat driver." The same letter goes on to list all of the qualities of a superior fighter plane and finds them to be incompatible with those of a Fleet Air Defense interceptor, concluding that "the defensive role of the interceptor is almost completely disassociated from the offensive role of a tactical fighter."

Sixth, and last, I am asking that the Department of Defense make available an internal study of one compromise alternative to blanket approval of the F–14 program. Press reports indicate that the Office of Systems Analysis in the Office of the Secretary of Defense has recommended that the early "A" version of the F–14 be scrapped and that the remainder of the program be stretched out approximately 18 months. These recommendations apparently have the partial backing of the Deputy Secretary of Defense, Mr. David Packard. This alternative is of particular interest to the Senate because it represents a compromise position between scrapping the F–14 concept altogether and blank-check approval. In my remarks on August 13, I mentioned that such a restriction on the procurement of "A" model F–14's might be a balanced approach for the Senate to take, and these Office of Systems Analysis recommendations will be invaluable to our consideration of the matter. Accordingly, I request release of the terms of this compromise proposal to the members of the United States Senate.

Some of these documents which I have listed have been seen by members of the Senate. Indeed, most of them are familiar to the small community of Senators who have taken an interest in the problems surrounding the F–14. But I feel that the Senate at large deserves free access to all of this information, as a supplement to the incomplete and somewhat misleading testimony which we have heard so far. For this reason, I have written a letter to the Secretary of Defense, Melvin Laird, requesting that all of this material be made available, upon request, to members of the Senate.

My own doubts about the F–14 have only been intensified by the heavy secrecy which surrounds most of these internal documents. What is the Navy trying to hide? Perhaps the Pentagon will be more forthcoming if it can be persuaded that my purpose is not hostile to Naval airpower as such. I fully recognize the Navy's need for a new fighter plane; the F–4 is now fifteen years old. In addition, I fully recognize the disadvantages of commonality; the special requirements of Naval airpower cannot be met through simple modifications of Air Force designs. Furthermore, I recognize the significance of large numbers of aircraft—the combat situation affords the opportunity to overwhelm as well as to out-design the enemy. But I feel that none of these requirements are adequately met by the proposed F–14, or at least not by the heavy-engine "A" model of the F–14. The Navy needs a new fighter—not another cumbersome platform for an ill-conceived missile system. The F–14 was designed primarily to carry six 1000-pound PHOENIX missiles—and the resulting size, weight, and configuration of the aircraft have clearly compromised its capabilities as a fighter plane. The problem of numbers, of course, is related to size and cost. If the Navy wants to build and fly a large number of carrier-based fighters, it should be thinking more seriously about similar planes with lower unit costs. At $15 million a plane, the cost of simply replacing all of our Navy and Marine F–4's with F–14's will be about $12 billion, and if the cost of weapons, maintenance, and operations are added in, the program will go well over the $25 billion mark in the next ten years. The Soviets have been able to produce large numbers of fighters because they have managed to keep unit costs down—it has been estimated that the MIG–23, the new hot Soviet fighter, will cost little more than $3 million a copy. The MIRAGE III, the French fighter which performed so well in the Six-Day War, costs only about $2 million. Only because we insist upon loading expensive missile and avionics systems

onto our planes—"goldplating" them, as it is called—do we find it hard to afford a superior tactical air capability.

Goldplating is hard on performance as well as on budgets. A secret Pentagon study—one which I did not list above because it has already been well publicized—has indicated that our country has wasted billions of dollars on complicated electronic gadgets which actually impair the combat effectiveness of our aircraft. The original cost of these gadgets is exorbitant—and operating costs can run more than 12 times as high as procurement costs over a ten year period. Overall, the costs for modern fighter avionics can generally be estimated at an incredible $7,600 per pound.

Actual performance, as well as economy, is sacrificed on this altar of technological sophistication. The Pentagon report to which I refer indicates that air to air missiles costing as much as $50,000 apiece are actually less effective than 100 rounds of ammunition, costing a mere $56, fired from the fixed-sight guns of an old Korean-War vintage F-86. Airborne radar systems have been notoriously overrated, as well as overpriced. Experience in Vietnam has confirmed the limited value of radar detection—there has not been, to date, a single non-visual kill in all the years of air to air combat over Vietnam. And ironically, these radar detection systems which have trouble locating enemy planes send out powerful signals which often give away the location of the plane using the radar.

The Phoenix, a radar missile originally developed to counter a non-visual bomber threat, suffers from all of these ills and more—it is five times as complicated as any radar missile in operation today, much heavier, far more difficult to accommodate on a high performance aircraft, and preposterously expensive—$400,000 per missile. The Navy tells us that these missiles can easily be "jettisoned" from an F-14 in flight if high combat performance is desired in an emergency; but the thought of casually dropping six $400,000 missiles into the sea offers me little comfort.

In fact, most of the shortcomings of the F-14 can be traced to its primary armament—the Phoenix missile. Carrying these heavy missiles, the F-14 is an ugly hybrid weapon—the speckled progeny of a marriage between two incompatible ideas. As a multi-mission aircraft, the F-14 will be capable of doing many things, but none of them very well.

The seeds of this mismatch between fighter and missile were sown in the mid 1950's, when our Defense Department sought to develop aircraft capable of intercepting enemy nuclear bombers intent upon the destruction of our continental bases and our carrier task forces at sea. To meet this projected Soviet bomber threat we designed a very large, radar-equipped, missile-armed airplane. This plane was designed to hover above the ocean and protect the fleet by sending long range missiles over the horizon to kill the intruders before visual contact had been made. This system was named the Eagle-Missileer.

A fresh look at the problem by a new administration in 1960 brought a reorientation of our strategic thinking, and a change in the primary mission of Naval airpower. The vulnerability of the carrier task force to the submarine threat, and a new emphasis on non-nuclear warfare capabilities led to abandonment of the premise that the carrier task force would be effective against the mainland of Europe in a nuclear war. These changing circumstances, plus a cost-effectiveness examination, were more than enough to kill the Eagle-Missileer program in 1960.

But advocates of this missile system inside the Navy waited in the wings for an opportunity to hang a modification of the Eagle Missile on another airplane, and their opportunity came with the TFX. A fleet air defense missile system was quickly built onto the Navy version of the TFX, the F-111B. When this new weapon system arose from the ashes of the Eagle-Missileer, it was only appropriate that it should be named Phoenix.

With the demise of the F-111B, the already outdated advocates of nuclear war fleet air defense again needed a new plane on which to hang their Phoenix missile. By overdrawing the Soviet bomber threat that has never really materialized, these people were able to launch their new missile platform in the guise of the F-14.

The primary role of tactical airpower in the 1960's and the 1970's bears little relation to the vision of nuclear bomber war which grew out of the 1950's. Vietnam and the new realities of the balance of terror have combined to demonstrate the importance of conventional close-combat fighter capabilities, and such capabilities are compromised when an airplane is forced to carry heavy radar missiles such as Phoenix. To the degree that the F-14 can perform both the fighter and the missileer role, it will experience all of the difficulties and the confusions which plagued the multi-purpose F-111B.

Perhaps the most eloquent critique of this confused F-14 concept comes from a Navy man who spoke his mind before the plane became a sensitive political issue. Writing in the Naval Review, Captain C. O. Holmquist of Naval Air Systems Command, addressed himself to the problem of building a multi-purpose aircraft:

"Modern technology and the wonders of avionics will certainly allow us to combine all of the functions and weapons of an all-weather attack aircraft, a fighter, and an interceptor into one aircraft. However, such an airplane would be expensive, complicated, difficult to maintain, and training pilot and crew would present formidable problems. More important, if we allow the enemy the same technology, he can build single-purpose aircraft which would be superior to our multi-purpose aircraft in each of the missions it performs."

Captain Holmquist concludes his article by listing some of the things he would like to see in the Navy's next fighter plane; and he hints at the reason why we might not get them:

"Our experience tells us that simplicity, reliability, maintainability, light weight, small size, and low cost are the guidelines we should follow in the future. Our expanding technology is a strong force to drive us away from most of these objectives."

In conclusion, the F-14 may deserve our consideration as a flying laboratory, a $15 million plaything for the R & D men in the Pentagon and the technical dilettantes in private industry. But as a weapon, it deserves more critical review.

Our critical review of the F-14 will be aided by release of the half-dozen documents which I have listed above. I am glad that responsible officials and officers inside the Pentagon are objecting to the folly of the F-14, and I hope that their objections will be heard and heeded by the U.S. Senate.

Mr. HARTKE. We fully recognize the need for modification and improvement of our tactical air force to meet the expanded capabilities of potential adversaries. However, we do not believe that the F-14 can adequately perform the role the Navy has mapped for it. As an alternative, we have proposed the initiation of a light fighter prototype program similar to that to be undertaken by the Air Force. During the floor debate on the F-14 2 years ago, I spoke to this issue and said:

If the Soviets follow their traditional policy of developing small, simple, maneuverable fighters, they can produce an aircraft in the mid-1970's that will be significantly better than our F-14's. Although we have not yet seen a Soviet fighter that is a better dogfighter than the MIG 21, we need to prepare against such a threat since the lead-time to develop a new fighter is much longer than the intelligence leadtime we will get when the Soviets produce theirs.

The Navy has, in effect, argued that the day of the dogfight is over; that in the future we can count on missiles to shoot down enemy fighters at long range. The fighter pilots have been hearing this story for a long time. They simply do not believe it. The R. & D. community has been promising better missiles for 20 years. Yet, the fact remains that fighter-to-fighter engagements have changed little since World War II. Despite very optimistic estimates and cost modifications before the Vietnam war, virtually all fighter pilots feel strongly that fighters must have guns and that the guns will be used for the majority of kills.

Mr. HARTKE. It is clear that a light-prototype fighter, if produced in quantity, could be turned out for as little as $2.5 to $3 million per copy, as opposed to the $16.7 million figure of the F-14. The result of this savings is that the Navy would be able to replace the 1,000 current generation fighters now in service, with the new light fighter on close to a 1-to-1 basis. The alternative is to buy only the 301 F-14's now requested by the Navy and thereby reduce the size of the Navy's air fleet by more than 700 planes.

Mr. President, I ask unanimous consent that the speech with which I opened the floor debate on the question of the F-14 in 1969, and from which I just quoted, be inserted in the RECORD.

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

Mr. HARTKE. Mr. President, those of us who have offered amendments to the pending military procurement authorization bill share with every other Member of this body a determination to keep America's defenses overwhelmingly powerful. Every one of us recognizes how vital it is, not only to the United States but to all the people of the non-Communist world, that our military power remain sufficiently great to deter potential aggressors. There is not a Member of the Senate who does not understand the bitter principle of 20th century international politics—that weakness does not prevent war, it invites it.

Our efforts during these long weeks of debate have in every case been directed toward the elimination of what we believe to be waste and inefficiency. We have proceeded on the assumption that 5, 10, 20 billions of dollars expended on unnecessary or gravely questionable weapons systems is that much money wasted—and America weakened by precisely that amount. In short, Mr. President, the issue has never been between those who favor a strong America and those who favor a soft, flabby debilitated America. The issue has always been one of differences of judgment among the 100 U.S. Senators every one of whom is passionately dedicated to keeping America powerful, proud, and free.

It is in that spirit that the distinguished senior Senator from Oregon and I offer our amendment to the pending bill.

Mr. President, the military authorization bill before us contains $450 million for the Navy F-14 fighter. This is only the first installment on an enormous program. The 10-year cost to buy and operate F-14's for the Navy and Marine Corps has been estimated at $25 billion—over three times as much as the administration estimated for the ABM program. The F-14 program has been the center of controversy within the Department of Defense for the past 2 years. The issue is not whether the Navy should develop a new

fighter to replace the F–111 and F–4; there is widespread agreement that they should. Rather the controversy revolves around the type of fighter that should be developed.

It would hardly seem that the floor of the Senate is the appropriate place to discuss the design of a new Navy fighter. However, there is much more involved in this debate than the shape of the wing and the size of the engine. The issues involved in the F–14 decision range from broad national policy regarding the type of wars we want to prepare to fight, to crucial assessments of the nature of air warfare in the future. The decision that is made will have profound effects on both the capability and cost of our tactical air forces in the 1970's.

In just a moment, I will discuss these issues in more detail. For the present, I can illustrate the magnitude of the decision by pointing out that critics of the F–14 program claim that the Navy can develop a much better air-to-air fighter and at the same time reduce the 10-year costs by as much as $15 billion.

Just who are these critics? First, and most important, there is a host of critics among the Navy fighter pilots who will have to fly the new aircraft. The question of the fighter design has been the subject of heated debate within the Navy for several years. It is an open secret that the Navy pilots did not like the F–111B. When the F–111B was canceled, many of the fighter pilots tried to get the admirals to develop the small, simple, and very maneuverable fighter that they believed would be essential to meet the type of fighter the Soviets can develop in the mid 1970's. The pilots were overruled, however, by Navy management. Instead of a single-place, 30,000-pound maneuverable fighter, they got a two-place, 55,000-pound missile launching platform. Pilots operating fighter squadrons are disappointed by this decision.

When the pilots were stifled within the Navy, their cause was taken up by a group of civilians in the Department of Defense. However, these civilians have been no more successful at convincing the top level of DOD management than the pilots were at convincing the admirals.

In view of the magnitude of the issues involved in this dispute, both in terms of our capability to fight successfully in future wars and in terms of cost, it would seem that the issues should be subjected to widespread public debate. Yet, while the amount of money involved is almost twice as much as that associated with the ABM program, there has been no public debate. The primary reasons for this are the lack of knowledgeable individuals outside of the Defense Department who are free to speak up and express the alternatives and the cloak of secrecy placed around military programs. It is in the national interest that both of these constraints be removed in the future. The first can be removed by fostering the establishment of competent research groups which do not depend on the Department of Defense or the aerospace industry for financial support. The second can be removed by insisting that only essential information be withheld from the public on the basis of security classification. The recent ABM debate indicated how far it is possible to go in declassifying essential information without endangering national security.

We should insist on similar openness in other areas as well. If there has been no public debate of these issues, at least we could hope that the Armed Services Committee would carefully scrutinize the issues before reporting out the authorization bill. I am sorry to say that despite the fact that our colleagues must have been aware of the controversy over the F–14, the Armed Services Committee did not call one single witness to present the arguments against the F–14. In the absence of critical review in either the public press or in the Senate committees, I have asked the Secretary of Defense to release seven specific documents which present the other side of the story. I have yet to receive the requested material.

Mr. President, it is unwise for Members of this body to vote authorization for such a huge sum of money without thoroughly exploring the alternatives available. Some may argue that the issues are too complex to be understood by the lay person. The issues in this case, however, are considerably less complex than those in the ABM dispute; and the costs and impact to our national security are just as large. Even if the administration refuses to cooperate—indeed especially since the administration refuses to cooperate—we should thoroughly air the pros and cons of the F–14 program. While I would have liked to have more evidence, I will try to outline the case for an alternative to the F–14 program.

There are two basic issues that must be addressed in deciding on the type of fighter the Navy should develop to replace the F–14. These are the type of wars we wish to be prepared for and the nature of air warfare in the future.

The F–14/Phoenix concept has evolved from longstanding Navy interest in protecting the carriers in a nuclear war. The concept originated in the 1950's when we were planning our forces primarily for a nuclear war with the Soviet Union. At that time it was quite clear that a single nuclear weapon delivered anywhere in the vicinity of a carrier would wipe out an entire task force. Thus, to protect their nuclear attack mission, the Navy desperately needed a weapon that would destroy 100 percent of the Soviet missile-launching bombers in a massed attack against the task force. The original proposal was called Eagle/Airee or Missileer—it consisted of a low performance, long loiter, missile platform and an air-to-air missile of unprecedented size and complexity.

The Eagle missile program was canceled in the early 1960's due to technical infeasibility. However, the Navy never gave up on the missile. It resubmitted the idea, renamed the missile—appropriately enough, "the Phoenix"—and tied it to the ill-fated F–111B airplane—again with the idea of providing a platform of launching long-range multishot missiles at formations of enemy bombers.

The Navy realized that the F–111B, overburdened with the complex electronic systems needed to launch and control the Phoenix, would not meet its needs for an air-to-air fighter in the 1970's. Even in the early 1960's it had proposed another, smaller fighter to perform the essential air combat or dogfight job.

In 1968 the Navy finally divested itself of the F–111B. The reason it offered was that the F–111B, while adequate for fleet defense, could not perform the air-to-air combat task adequately. It could not dogfight on even terms with a Mig 21, let alone the more advanced Soviet fighters of the late 1970's.

After offering this rationale for canceling the F–111B, the Navy again tied the Phoenix missile to its so-called new "Fighter"—the F–14. The Phoenix missile, with its associated two or three tons of supporting equipment, is the primary reason why the F–14 is as large, heavy, unmaneuverable and expensive as it is. Once again the Navy has designed a low-performance, long-loiter time, missile-launching platform instead of a fighter. The ex-Secretary of the Navy, Mr. Ignatius, indicated that the F–14A would only be "comparable" to the current Mig 21 in a dogfight. My information indicates this is a decidedly optimistic assessment. Obviously, the F–14A will be much worse than the Soviet aircraft we can expect to face in the mid and late 1970's. Nevertheless, the Navy is planning to buy 67 of these inferior F–14A's at a total cost which would be as high as $1.4 billion.

The Navy argues that the F–14B, which will have an advanced engine with more thrust, will be a better dogfighter than the F–14A. The 14–B, however, will be just as heavy and have the same undersized wing as the F–14A. Thus, it will be considerably less maneuverable than it could be without the Phoenix and all the associated fleet air defense compromises. We know it will not be as good a dogfighter as the Air Force F–15. Nor can it match the even better performance that the Soviets can build into their next fighter generation.

Quoting Navy Captain Holmquist:

"Modern technology and the wonders of Avionics will certainly allow us to combine all of the functions and weapons of an all-weather attack aircraft, a fighter, and an intercepter into one aircraft. However, such an airplane would be expensive, complicated, difficult to maintain, and training a pilot and crew would present formidable problems. More important, if we allow the enemy the same technology, he can build single-purpose aircraft which would be superior to our multi-purpose aircraft in each of the missions it performs."

In view of this history it is important to examine the justification for the Phoenix in some detail.

Since the nuclear attack mission of the carrier has lost its credibility, the primary justification for the Phoenix is now defense against the same massed raids of Soviet naval bombers launching the same missiles, but armed with conventional rather than nuclear warheads. It is essential to realize that no Communist nation in the world beside the U.S.S.R. has even the beginnings of a naval bomber fleet. The Soviet naval bomber fleet itself, as Representative MAHON has pointed out, never materialized into the massive forces the Navy has been predicting for years. Thus, the Phoenix must be justified for defending the carrier in waters adjacent to the Soviet Union in a massive conventional war, with U.S.S.R. forces fully involved. Yet, under these improbable circumstances, the Soviet bombers are by no means the worst threat.

The irony of the situation is that large Soviet submarines forces make it impossible for our carriers to operate in either the North Sea or the Mediterranean, with or without Phoenix. Some here will remember that it was impossible in World War II for either British or American carriers to launch strikes from the North Sea against Germany. The situation for the carrier today is much worse; its speed has barely increased while the submarine's speed has increased by a factor of five with commensurate reductions in noise and detectability. Not only is the carrier far more vulnerable, it is also not needed since there are over 100 airfields of 8,000 feet or longer in Central Europe. The Air Force has indicated that this is more than enough to handle all the tactical air needed in Europe. Since the F–4s are more than adequate against the few non-missile-launching bombers available to the less-developed Chinese or the East Europeans, we find ourselves in the paradoxical position of incurring the enormous cost and the fighter deficiencies of the F–14/Phoenix combination in order to defend the fleet in a theater of war where it cannot and need not be used.

The overemphasis on fleet defense that has led to the F–14/Phoenix has taken our attention away from a much greater need to develop a truly superior air-to-air fighter. If the Soviets follow their traditional policy of developing small, simple, maneuverable fighters, they can produce an aircraft in the mid 1970s that will be significantly better than our F–4's. Although we have not yet seen a Soviet fighter that is a better dogfighter than the Mig 21, we need to prepare against such a threat since the leadtime to develop a new U.S. fighter is much longer than the intelligence leadtime we will get when the Soviets produce theirs.

The Navy has, in effect, argued that the day of the dogfight is over; that in the future we can count on missiles to shoot down enemy fighters at long range. The fighter pilots have been hearing this story for a long time. They simply do not believe it. The R. & D. community has been promising better missiles for 20 years. Yet, the fact remains that fighter-to-fighter engagements have changed little since World War II. Despite very optimistic estimates and costly modifications before the Vietnam war, virtually all fighter pilots feel strongly that fighters must have guns and that the guns will be used for the majority of kills. They believe that missiles, particularly complex ones, will be unreliable, easy to outmaneuver and easy to countermeasure. We have not shot down any aircraft in air-to-air combat with missiles used outside of visual range. The position of the fighter pilots is summed-up in the following quote, again from Capt. Holmquist:

"For the fighter role, speed, excess thrust, buffet boundary, roll rate, maneuverability, and altitude must be maximized, since the style of fighter-to-fighter engagements has changed little since the days of World War II and Korea."

The Navy claims that the F–14 is also optimized for air-to-air combat role as well as for fleet defense. This assertion is absurd on the face of it. First, the Air Force F–15, which will have to face the same enemy aircraft, weighs much less than the F–14 and is much more maneuverable. Clearly, the F–15 will be a better aircraft for air-to-air combat.

More important, however, there have been a series of reports in the trade journals about an alternative fighter that could be developed which would be much better, as well as much cheaper, than even the F–15. This aircraft, which has been called the F–XX the VF–XX in the Navy version, has been described as a simple, uncompromised, single seat, single engine, under 30,000-pound fighter which derives maximum benefit from the advances which have been made in aerodynamics and engine technology to achieve an unprecedented level of agility. In addition to a gun, the aircraft would be armed with simple heat-seeking missiles, which have been by far the most effective missiles we have used in Vietnam.

There is no doubt that an aircraft of this type would completely dominate the F–14B in air-to-air combat. If we could build it, we certainly must be concerned that the Soviets might, since it is quite similar in concept to their traditional approach. Given the past performance of the missile developers, fighter pilots are simply not willing again to put their hopes and their lives on aircraft of inferior performance which rely on untested "paper" weapons for survival and victory. They want a fighter, not a missile-launching platform.

So far, I have only spoken about performance. However, not only would a simple fighter like the F–XX outperform the F–14, it would also be very much cheaper. Rough estimates indicate that the 10-year cost for this type of aircraft would be less than $10 billion as opposed to $25 billion for the F–14. The difference in cost between the two programs is twice as much as the total cost estimated by the administration for the ABM program.

The questions I have raised merit further study. Accordingly, the amendment we have proposed to the authorization bill would require that Congress undertake a study prior to April 30, 1970. This study would be an investigation of the requirements to be fulfilled by future carrier-borne aircraft and the projected capability of the F–14 to fulfill these requirements in the most effective and efficient manner.

This study will not delay in the slightest way the introduction of a new fighter into the Navy.

There is one final issue that concerns me about this program, Mr. President. The administration is proposing to use the total package procurement—TPP—concept with token modifications for procuring the F–14. Once again, we are undertaking a very complex technical development program based on "paper" estimates made by the contractor for the performance, risks, and costs for a new airframe, new fire control, and new missile. The DOD has arranged development and procurement so highly concurrent, that we will have to appropriate as much as $3 billion before we find out whether the F–14 even comes close to meeting specifications, much less whether it has any usefulness as a fighter.

It seems hardly necessary to stress the obvious problems with this approach to aircraft development. TPP has led to the extreme cost overruns in the C–5A program. Already, independent cost estimates have been made which predict as much as 50-percent overruns, for F–14.

TPP has also led to the technical disaster with the Cheyenne helicopter. The same people in the Pentagon who are telling us that there is little risk in the F–14 program, told us the same thing about the Cheyenne based on the same type of "paper" studies by the contractor.

Despite promises to reform the procurement procedures and to insist on testing prior to production commitment, the very first major aircraft program proposed by the new administration fails to meet these promises.

I completely concur with the very sensible recent study prepared by GAO for Senator HART on parallel undocumented development. Given the technical risks associated with a complex fighter development, it would seem reasonable to insist on competitive fly-off of prototype aircraft prior to a selection of aircraft for production. While this approach may seem more costly and time-consuming at first, it will assuredly lead to a better end product, and, in the long run, is likely to produce a usable fighter at less total cost and in a shorter period of time. When faced with a competitive fly-off, the contractors have the incentive to get every ounce of performance possible out of their designs. They do this by keeping their best people on the job throughout—as opposed to the usual practice of assigning the good people to the program only until the contract is awarded and then taking them off to bid on the next one.

The competitive prototype approach permits meaningful cost estimates for the production aircraft since the contractor's bids are based on hardware rather than paper. Since the R. & D. costs are only about 4 percent of the 10-year cost, even small savings in production and operating costs can far outweigh any extra R. & D. costs that might be incurred.

In addition, the aircraft might even be available sooner since the competitive prototype approach would reduce the probability of needing extensive changes to meet performance goals—as on the F–111B and Cheyenne helicopter programs.

Finally, Mr. President, I again find it ironic that the services have complained bitterly about the lack of aircraft development programs in this country. We are told that we have not built a new fighter since the F–4 was flown in the 1950's. They stress the fact that the Soviets have flown about one new prototype each year and that this approach gives them a wide range of alternatives from which to choose a production aircraft. Yet, despite these claims, neither the Navy nor the Air Force has proposed the competitive prototype development approach for their new fighters.

These are questions and concerns that merit the special and specific attention of Congress. To gain that attention is the purpose of the amendment which Senator HATFIELD and I offer today.

Mr. HARTKE. I am not unaware of the substantial economic impact cancellation of this project would have. The Bendix Corp., located in South Bend, Ind., has the contract for production of the landing gear and fuel control systems of the F–14. I am told by officials at Bendix, the representatives of the union there, and by officials of the chamber of commerce, that cancellation would mean the loss of 1,000 jobs. All this would come at a time when South Bend is already experiencing severe unemployment.

I recite this interest of many of my constituents as proof that I do not take this action lightly. My concern, however, is that the Navy develop the best fighter possible. If a light fighter prototype program is initiated it is my hope that work on its fuel control and landing gear system would be done in South Bend. I am confident that in the long run a subcontract of this nature would be far better for all concerned. The Navy now plans to buy only 301 production planes, rather than the 710 planned for earlier, with the result that the life of the contract has been substantially reduced. Production on a lighter fighter, however, in view of its relatively small cost, could easily exceed 1,000 planes.

As the distinguished Senator from Wisconsin (Mr. PROXMIRE) has said:

The F–14 is in many respects a microcosm of many of the problems which plague our defense industry.

I agree and trust that the debate this afternoon will prove the wisdom of deleting all funds for the continuation of the F–14 program.

Mr. President, the Federation of American Scientists is a distinguished group of men. Under date of September 23, 1971, they made a statement on the F–14, which neatly ties together the arguments against this plane and reads in part as follows:

As a textbook example of Defense Department excesses, the F–14 has everything. F–14 is a hopeless and unnecessary effort to keep our aircraft carriers usable in U.S.-Soviet wars. Its total cost may exceed $6 billion for 300 planes to serve on the carriers in "high threat" areas. Its unit costs will be four or five times higher than the F–4 aircraft it replaces. Its effectiveness depends on the workability of its unproven Phoenix missile. And the future will shortly see Grumman begging price increases from the Defense Department only two years after Grumman's last minute, half-billion bid reduction secured the contract. It is no accident that supporters of the F–14 are already emphasizing sunk costs, and employment opportunities, in order to secure approval of a batch of 48 planes. *In sum, F–14 is a purposeless, enormously expensive, gold-plated procurement scandal dependent on a missile that may not work; its only hope is to become a fait accompli.*

Mr. President, I ask unanimous consent to have the entire text of their statement printed in the RECORD.

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

FAS STATEMENT ON F–14

As a textbook example of Defense Department excesses, the F–14 has everything. F–14 is a hopeless and unnecessary effort to keep

our aircraft carriers usable in U.S.-Soviet wars. Its total cost may exceed $6 billion for 300 planes to serve on the carriers in "high threat" areas. Its unit costs will be four or five times higher than the F–4 aircraft it replaces. Its effectiveness depends on the workability of its unproven Phoenix missile. And the future will shortly see Grumman begging price increases from the Defense Department only two years after Grumman's last minute, half-billion bid reduction secured the contract. It is no accident that supporters of the F–14 are already emphasizing sunk costs, and employment opportunities, in order to secure approval of a batch of 48 planes. *In sum, F–14 is a purposeless, enormously expensive, gold-plated procurement scandal dependent on a missile that may not work; its only hope is to become a fait accompli.*

The F–14 is a hopeless effort to keep aircraft carriers usable in U.S.-Soviet wars because carriers can so easily be put out of action. Attacks on carriers can be launched from Soviet bombers, surface ships or submarines, all of which can launch cruise missiles. Even with conventional weapons alone, Soviet attacks could seek to destroy the ability of the carrier to function by destroying its screws, or by attacking the aircraft on its deck. Few penetrations of the carrier defenses are necessary to force it to return to base. Since the United States would have only a handful of carriers on station; since these expensive weapons would be a magnet for attack; and since the Soviets have large numbers of submarines and medium-range bombers; the continued functioning of U.S. carriers in such wars is highly unlikely.

F–14 is not only a largely hopeless, but an unnecessary effort to protect attack carriers because carrier-based sorties are most unlikely to be critical in U.S.-Soviet wars. Except in unusual circumstances, land-based aircraft have cost and locational advantages over carrier-based forces. One or two extra (floating) bases can hardly make such difference in a large-scale U.S.-Soviet war. And a war in which we are willing to risk carriers against the Soviets is large-scale.

F–14 is gold-plated. The Fiscal 1972 request is for $1.034 billion for 48 planes, of which $228 million is for R&D. At this rate, the cost for the 300 planes desired will be $6 (six) billion! Unit costs are $16 million each and rising. The cost of the F–4 to be replaced was $4 million and this plane might well be modified to be a substitute. The effectiveness of the F–14 depends upon the Phoenix air-to-air missile without which it is clearly not sufficiently better than the F–4 to be worth four or five times the cost. The Phoenix is not yet sufficiently tested to ensure its workability. Nevertheless, the F–14 design is fully committed to, and compromised by, the necessity to carry this expensive ($400,000 a shot) and heavy missile.

F–14 is a procurement scandal. Grumman Aerospace Corporation signed the contract in February 1969. Two years later, in early 1971, it notified the Navy that it would take significant financial losses in future—but that it would deliver the first 38 planes on order. Grumman complained of: higher rates of inflation than expected; lower rates of other business than expected; and more difficulty in meeting the agreed Navy requirements than expected!

The F–14 is seeking to establish the status of a fait accompli. The Defense Department had the option this year of buying between 48 and 144 planes. Since Grumman is threatening to insist on contract renegotiation, one would have expected DOD to order the most it could get while the price is "low." Instead, it is ordering the *minimum* permitted by the contract (48). As a result, the Congress is offered the lowest possible down-payment ($1 billion) consistent with no immediate contract scandal. This helps, obviously, in getting the program approved. But once the down-payment is made, Grumman will insist on renegotiating the price for the remaining more than 200 planes.

F–14 was not debated by the House of Representatives because Chairman of the Armed Services Committee Hébert held back the request pending a special review of Secretary Packard on the number of planes to be bought. Thus, the House of Representatives is being denied an opportunity to debate the F–14 except on the Conference Committee report. But long before the Conference Committee report is approved—on October 1—the Administration will sign a contract with Grumman for the 48 planes. The termination costs of this commitment will deter Congressional disapproval of the program in the debate on the Conference Committee report. And by next year, there will be $1 billion more sunk costs to deter termination.

It is a self-evident distortion of priorities to spend six billion to give carriers marginally improved abilities to do a largely unnecessary and hopeless job. The enormous cost of defense of carriers from enemy attack is already so distorting Naval expenditures that they may become total liabilities. If further funds are to be spent in improving the survivability of carriers by means of improved aircraft, those funds should be of much smaller magnitude. Such possibilities do exist involving modifications of the F–4 to be replaced, or use of the Air Force's F–15. But obviously the Navy will not seriously consider alternatives to an on-going program until the program is stopped. This is law of Defense Department bureaucratic life.

The Senate Armed Services Committee has recently complained that it is often offered no option but to buy:

"At the present time Department of Defense Development procedures are so structured that in each area there is only a single weapon system available to modernize the forces—and this system is often a very costly one. This means that Congress is faced with the decision of approving the procurement of that system or denying modern weapons to our armed forces."

In answer to this, the Defense Department has announced its intention to emphasize prototyping. If the F–14 program is stopped, we have no doubt that a variety of alternatives will quickly emerge from the Navy. Hopefully, the Defense Department will then apply its new procedures to determining the best alternative before contracts are let. All of this will produce a further delay. But it is evident from the foregoing that there is no great urgency—if even there is important utility—to these improvements.

This year, the Senate Armed Services Committee report was eloquent in describing the cost squeeze in which the Defense Department finds itself. Considering all of the felt needs of the Department, we find it hard to believe that the Defense Department itself considers the F–14 a sensible allocation of its resources and priorities. And in light of needs outside the Defense Department, there is no doubt whatsoever in our minds that the F–14 cannot be justified. *Besides the ABM, no DOD program more richly deserves cancellation than the F–14.*

Mr. HARTKE. Mr. President, I think it is remarkable and most unusual, at this late date, that we should hear that argument being used on the floor of the Senate, with no evidence at all, other than the self-serving statements of the Department of Defense and the Secretary of the Navy.

Mr. GOLDWATER. Mr. President, I yield myself 4 minutes.

The PRESIDING OFFICER (Mr. BROCK). The Senator from Arizona is recognized for 4 minutes.

Mr. GOLDWATER. Mr. President, I should like to reply to the statement made by the distinguished Senator from Indiana (Mr. HARTKE), that the airplane depends on the Phoenix missile. I am going to assume that we never build the Phoenix missile so that what we would have, then, would be an airplane with either a 20-millimeter cannon or a 30-millimeter cannon which could provide fleet protection.

I am as skeptical as is the Senator about the ultimate value of missiles. I think that cannon would be much better. The fighter pilots agree. There is no argument there. But the Senator is basing all his arguments on the idea that the weapons system will not work, that it will be valueless, if we do not have the Phoenix missile.

I point out that the sole purpose of an air superiority fighter in the Navy is to provide air superiority for the Navy to operate under. It does not do any good just to have light aircraft or heavy aircraft, if the enemy gains air superiority with fighters or bombers which can attack the fleet regardless of whether the missiles work or do not.

I hope that the missile does work, because it will give us two capabilities; one, to pick up the enemy and shoot him down without having to engage in a dogfight, because if our pilots have to engage in a dogfight, they have to trace down the airplane.

Fighter pilots have long argued that no fighter worth its name has ever depended on missiles alone. But, I do not believe that any pilot would want to go up to engage the enemy without having both weapons systems onboard.

On the fact sheet put out by my good friend from Wisconsin, I answered some of the statements the other day. I had hoped we had shot them down. Under his heading "Capabilities," it states in part:

> The F–14's primary mission is to be a new air superiority fighter. Yet recent Pentagon and contractor studies show that it is no better than the Navy's F–4 fighter which it is intended to replace.

Well, Mr. President, I have searched high and low, and so has the Pentagon, and the only statement we can come up with is a combined Navy-Air Force study in 1969 where they studied the possibility of putting wing slots on the F–4 to increase the rate of turn and to accomplish some other things that were desirable. So that they did not want this even though the study showed some improvement. None of the tests were carried out on water. They were carried out on land. The fact that it added 1,000 pounds to the airplane, which added about 5 miles an hour on the approach speed, made the Navy decide not to use it because they said that to increase the approach speed to a carrier would make it extremely dangerous so they did not want it.

So the statement that the F–4 is as good an airplane as the F–14, just will not hold water.

The chairman of the committee has read the statistics which I placed in the RECORD the other day. These statistics have to be reached by a computer because we have no way of comparing the F–4 with the F–14 in actual flight. We have only one actually being tested.

The PRESIDING OFFICER. The time of the Senator has expired.

Mr. STENNIS. Mr. President, I yield 1 additional minute to the Senator from Arizona.

Mr. GOLDWATER. The Senator from Wisconsin gets into the argument on the lightweight fighter. These planes are being developed as prototypes not for the Air Force or the Navy, although they may wind up buying them. They are being developed for other countries which need this particular type fighter at the present moment.

I know of one plane being developed which depends on 16,000 feet of climb. This plane will only be able to stay up for 45 minutes.

The PRESIDING OFFICER. The time of the Senator has expired.

Mr. PROXMIRE. Mr. President, I yield 2 minutes to the Senator from Indiana.

Mr. HARTKE. Mr. President, did I understand the Senator to say that the Phoenix at this time is not an approved missile system?

Mr. GOLDWATER. No, I do not agree with that. I agree that a missile system alone is not enough of a weapon for a fighter plane. Fighter pilots would much rather have firepower, although they agree that being able to shoot an enemy down at a distance is much preferable.

Mr. HARTKE. Mr. President, what is the weight of the F–14 and the F–15?

Mr. GOLDWATER. With the Phoenix, about 58,000 pounds.

Mr. HARTKE. What about the F–14?

Mr. GOLDWATER. About 50,000 pounds.

Mr. HARTKE. Does not the Senator agree that the F–14 would be much more preferable as a fighter plane?

Mr. GOLDWATER. I think we are engaged in a useless colloquy here. The F–14 does not have to fly with a Phoenix missile. That is what I am trying to bring out. Whether it will outfight the F–15, I cannot say. I have not seen it fly.

Mr. HARTKE. The Senator's argument is that he does not want the Phoenix system on the F–14, which would make it cost at least $15 or $16 million. If they are not going to use it, why build the plane?

Mr. GOLDWATER. Mr. President, we went through the same argument on the F–111's and the F–111B's. The ridiculousness of Mr. McNamara's position on using the planes for both land and sea has been amply demonstrated.

Mr. DOMINICK. Mr. President, yesterday I received a joint letter from the three cosponsors of the pending amendment to terminate the F–14 program. I assume that each of my colleagues also received the same letter.

Attached was a paper purporting to give the facts on the F–14 but there are a couple of statements I believe to be far from factual. For example, the F–14 fact sheet states the F–14 will cost up to $16 million each, compared to the present F–4 costing $3 to $4 million each.

It is then stated the F–14 is four to five times more expensive than the F–4. On the surface this would appear to be the case, but it is not a valid comparison.

The price of the F–4 is based on a total buy that is now approaching 4,000 aircraft. Four thousand aircraft, Mr. President, in order to come up with an average price of $3 to $4 million each.

So the author of that fact sheet is comparing apples and oranges.

If a true comparison is desired it would be proper to ask what it would cost per aircraft to start today and build 300 F–4's, compared to 300 F–14's.

Mr. President, I do not deny the F–14 is expensive but I urge my colleagues to be cautious in accepting unit cost comparisons when the total parameter of the estimates is not known.

The fact sheet refers to the Phoenix missile as costing $400,000 each. Again, Mr. President, the unit costs have been improperly drawn and the distinguished chairman of that Tactical Airpower Subcommittee (Mr. CANNON) rebutted that statement on September 24. However, the statement says that the six Phoenix missiles that the F–14 will carry cost $2.4 million. As I said earlier that figure is not factual and as Senator CANNON reported, the actual flyaway cost per Phoenix is estimated at $270,000 each.

However, the fact sheet states that the $2.4 million is the approximate cost of three Mig–21's or one of our own F–4's. That means, Mr. President, that a Mig–21, one of the more sophisticated Soviet fighters, costs about $800,000. Now I do not know where that information comes from but I doubt it comes from an official source. My information is that a Mig–21 costs the Soviets between $1.5 and $2 million.

And if they can build it for that price, it is a bargain.

Using the lowest unit price of $1.5 million for a Mig–21, three would cost $4.5 million, not $2.4.

The point is, the author of the fact sheet missed by almost 100 percent in his comparison.

And certainly, we cannot buy an F–4 for $2.4 million. It is strange the author would make that statement when earlier he had stated the average cost of an F–4 was $3 to $4 million.

Errors like this certainly detract from the paper's credibility, and I wonder what other facts are not actual facts but merely convenient conclusions.

There is another serious factual discrepancy that needs clarification. The statement is made that—

> The Air Force now estimates that its light fighter would cost $3 million per copy in production.

Now I do not know where the author of the fact sheet got that fact, but it is not true. The Air Force categorically denies having made any cost estimate regarding a lightweight fighter. They have no lightweight fighter program in existence, except the short-legged Freedom fighter built for small country purchases.

The Air Force will probably come to the Congress for permission to proceed with a lightweight fighter but the facts are they have yet to do that. It is possibly true they are pursuing technology in this area, which they should be doing and I encourage that, but certainly no official cost estimates have yet been made.

Mr. President, the discrepancies I have pointed out in this so-called fact sheet are very serious and should not go unchallenged.

If we are to make a valid judgment on the merits of the F–14 program we need to be objective about the entire matter and make our judgment on the true facts—not distortions.

The Armed Services Committee spent many laborious hours on this matter gathering the true facts. They are published in the committee report. I urge my colleagues to refer to that document if they desire the true factual information on the F–14.

Mr. THURMOND. Mr. President, the pending amendment, which would cancel the F–14 Navy fighter program and substitute in its place development of a new lightweight fighter, should be rejected by the Senate.

The Navy's F–14 program was initiated in 1968 when the Congress denied further funds for the F–111B, the Navy version of the TFX. This program had as its principal mission the development of an aircraft which would fill the Fleet Air Defense role from Navy carriers for the next 20 years.

Thus, the F–14 was developed with a dual mission to include Fleet Air Defense and as an air superiority machine. It is designed to destroy enemy aircraft before they reach the fleet but to also defeat any aircraft in air combat if they breakthrough. Tests to date indicate the F–14 will meet these requirements.

The dual mission capability of the F–14 is an outgrowth of years of Navy development effort. Navy forces, in common with all advanced forces, must both attack and defend with a limited number of weapon systems and facilities. The F–14, therefore, profits from previous developments. The airframe/engine design is entirely separate and much improved. The Phoenix weapon system provides the most effective kill probability under all conditions which involve multiple high speed targets.

Therefore, the F–14/Phoenix is exactly what is needed to counter the Mig–23—Foxbat. A very agile Navy visual fighter might do very well against the Mig–21 but it would be helpless against Foxbat. Since the F–14 must be prepared to encounter both, the aircraft has been specifically designed for the dual mission capability. Air superiority over the Fleet is not that remarkably different from superiority over enemy seas or land areas. It simply represents an extension of the potential combat arena.

Mr. President, I fully support the Navy's approach to this new system and urge the Senate to permit continuation of this program. It is clear that both technically and operationally the F–14 and the potential it possesses will prove worthy of our support.

In order to meet the growing Soviet threat the nation needs this aircraft. I urge the Senate to defeat the amendment to kill the F–14 program and substitute in its place development of a lightweight fighter aircraft.

Mr. CASE. Mr. President, our distinguished colleague, the senior Senator from New York (Mr. JAVITS), is not able to be present today. He has asked that I make his views on the F–14 Navy fighter program available to the Senate before the votes are taken on amendments to delete funds for this program. I ask unanimous consent that the statement

of Senator JAVITS supporting the F–14 program be printed in the RECORD at this point.

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

STATEMENT BY SENATOR JAVITS

I take this opportunity to make clear my position with respect to the Navy F–14 fighter program. Because of a religious high holiday, I cannot be present in the Senate when amendments to delete funds for the F–14 program will be voted upon. After careful study of the issues involved, I wish to urge Senators to defeat efforts to eliminate funds for the F–14. I believe that the position recommended by the Senate Armed Services Committee is both reasonable and judicious. The national interest will be advanced by upholding the Committee recommendation—both from the viewpoint of national security as well as from the prospective of financial prudence. Alternatives to the recommendation of the Committee would involve either unacceptable added costs to the taxpayer, or unacceptable risks to our national security posture—or both.

In my judgment, the crux of the issues to be decided by the Senate with respect to the F–14 program are stated succinctly and convincingly in a few short passages contained in the Committee report, which was written following very exhaustive hearings. On the question of the technical proficiency of the F–14, the evidence present in the hearings led the Committee to the following conclusion:

The F–14A will achieve a significant increase in performance over the F–4 aircraft. Specifically, the F–14A compared to the F–4J will have a 75 percent or better increased combat radius; 50 percent better combat rate of climb; 45 percent better acceleration; a 45 percent or better roll rate; 40 percent better energy maneuverability; more than twice the radar range; and three times the missile launch range with the Phoenix. Therefore, the F–14A will be a dramatic improvement in capability over the Navy's current inventory and will be able to cope with the Soviet threat.

My own view of the information which has been provided to me concerning our Navy's need for this aircraft persuades me of the following, with respect to the F–14: First, that the F–4, now the Navy's principal fighter plane, is not really adequate for fleet protection purposes, given the capabilities of the MIG–23 and its distribution among countries other than the Soviet Union; and Second, that this inadequacy will increase in the immediate future, as the Soviets produce newer equipment of which we already have considerable knowledge. Assuming, as I must assume at the present time, that the protection of our fleet in potentially hostile waters, and the viability of our aircraft carriers, is essential to our national interests, I have no choice at this time but to support the authorization of this procurement.

On the question of our vital national security interests, the conclusion of the Committee is quite succinct:

In the light of the threat and to maintain our national security interests, essential military programs must be supported. While undue increased costs on any given weapon system cannot be condoned, an alternate policy of leaving our combat forces indefinitely with existing equipment which will be inadequate for the future is not acceptable; nor can we revert back to a policy of relying exclusively on a nuclear deterrent. An effective conventional capability must be provided to deter or conduct conventional wars.

On the very difficult question of reconciling the considerations of rising costs and allocation of public funds, I feel that the Committee position is persuasive and responsible:

In conclusion, the committee reached the decision to support the request for 48 aircraft in order to maintain integrity of the existing program. This decision is believed to represent the better way to protect the taxpayer's interest, compared with the costly alternative of breaking the contract. The funds are recommended to be authorized with the specific provision that not less than 48 F–14A aircraft be purchased.

Mr. President, the hard reality which we face as a nation—as we emerge from the nightmare of the Vietnam war—is that in order to fund the Vietnam war, our strategic arsenal has been kept virtually stationary since 1965. Today, the U.S.S.R. enjoys a position of strategic parity with the United States. Over the long run, this may not prove to be a bad situation—if the two superpowers use the fact of parity as an opportunity to reach meaningful strategic arms limitation agreements.

In the short run, however, the achievement by the U.S.S.R. of strategic parity in the nuclear field, raises new dangers and the new possibilities of threats in the "conventional" fields. In many areas, the U.S.S.R. and its allies enjoy clear advantages with respect to "conventional" arms capabilities. If the achievement of nuclear parity serves to "cancel out" our own nuclear strength in crisis situations, the readiness and credibility of U.S. conventional forces takes on added importance.

The area where this is most immediately likely to be put to the test is in the Mediterranean and the Mideast. American deterrent power in that crucial region of superpower tension and confrontation is concentrated in the U.S. Sixth Fleet. The backbone of the Sixth Fleet is provided by its attack carriers. The deterrent capability of the Sixth Fleet's attack carriers in the decade ahead could depend very largely on the adequacy and success of the F–14 program. For this reason, I do not believe that we are dealing here with hypothetical or unreal issues, Mr. President. Rather, the Senate is being called upon to make a judgment on a weapons system which could make a significant difference on the question of war or peace in the Mideast. In this context, I believe that the best interests of peace and of our nation's security will be served by sustaining the F–14 program.

Mr. PROXMIRE. Mr. President, I yield 4 minutes to the Senator from Missouri.

Mr. SYMINGTON. I thank the Senator from Wisconsin.

Yesterday we had discussion with reference to the Harrier airplane. That airplane was desired by the Marine Corps to replace and did replace their F–4's. I so agreed in committee after the testimony, even though F–4's are built in my State, and so presented yesterday on the floor.

When we came to the question of purchasing F–14's, in my opinion the cost and performance of the plane does not justify any such procurement. Some of the best pilots I know, including Members of this body, have told me for at least a year this plane was too complicated. Everybody knows of its tremendously increased cost estimate.

It does take the Phoenix missile. I agree with the Senator from Indiana that that missile is unproved. We have today two proven air-to-air missiles—the Sparrow and the Sidewinder. With relatively minor modifications, the F–4 can outclimb, outfight, and outmaneuver the F–14. Three of these latter planes can be bought for the price of one F–14, and perhaps the price of four before we get through with these steady price increases.

In effect, the only thing the F–4 cannot do that the F–14 can do is to carry a Phoenix missile. That missile was developed for the TFX series of planes, a far larger plane. With all due respect to those who advocated this plane, it is well known that perhaps the primary interest in the F–14 was that it would carry the Phoenix missile. That missile has not been proved out.

If we can buy three, possibly four, equal or superior airplanes for the price of one, that is to the interest of not only the taxpayers of the country, but also our national security.

Mr. President, I thank the able Senator from Wisconsin for yielding.

The PRESIDING OFFICER. Who yields time?

Mr. STENNIS. Mr. President, I yield 3 minutes to the Senator from Connecticut.

CAN THE U.S. NAVY USE A "CHEAP, SIMPLE" FIGHTER?

Mr. WEICKER. Mr. President, the question often asked concerning the desirability of a so-called "cheap, simple fighter" for the U.S. Navy, instead of the planned F–14, obviously implies that such a fighter would be "better" than the F–14. More to the point, it also implies that we enjoy the enviable position of being able to make such a choice in weapon system selection. Nothing could be further from the facts of the issues involved.

Since the end of World War II, this country has attempted to maintain a tactical air force which could quickly react to the capabilities exhibited or publicized by the enemy. The results have been analogous to playing "catchup football." Our recent experience in Southeast Asia against a third rate air force, has shown the difficulties encountered in attempting to successfully engage enemy fighters when they operated under the control of their air defense networks, and were supported by antiaircraft artillery and surface-to-air missiles. These obstacles to maintaining air superiority by our fighter aircraft arose, not because of the "cheap, simple fighters" we encountered—and that is all they really were—but because a degree of sophistication was added to their tactics by the effective support from other enemy weapons and defense networks. It is most interesting to note that early in the Southeast Asia conflict, when these "cheap, simple" enemy fighters were engaged without their GCI and SAM support, they were no match for the better weapon-equipped and more versatile U.S. fighters

The threat we face in the future is not typified by the threat we faced in Southeast Asia. Our gravest mistake in safeguarding the security of this nation would be to be mesmerized by the Southeast Asia syndrome when defining requirements for our next generation of fighter aircraft. There appears to be little disagreement regarding the alarming degree of technological advances in air-to-air and surface-to-air missiles, airborne command and control systems, electronic jamming techniques, et cetera, achieved by the Soviets. Most significant of all, however, is the steady build-up of Soviet naval forces which now pose a threat to our fleet and the logistic supply

lines the fleet must protect. This alarming increase in capability is to be expected when we examine the magnitude of their continuing defense budget, and recognize their dedication to the development of an offensive and defensive military capability second to none. In any possible future conflict between the Soviet and the United States, or in any other conflict where first-rate Soviet military technology might be faced, there will be no time for "catch-up football".

Hence, in the light of the accepted nature of the spectrum of threats posed to our naval forces—and to our country—an aircraft weapon system must be developed as soon as possible which will be capable of destroying existing sophisticated, missile-equipped Soviet fighter aircraft, subsurface and surface-launched antiship missiles, and heavily defended bomber aircraft equipped with long range air-to-surface missiles. None of these were faced in Southeast Asia.

The PRESIDING OFFICER. The time of the Senator has expired.

Mr. STENNIS. Mr. President, I yield 1 additional minute to the Senator from Connecticut.

Mr. WEICKER. Mr. President, it is this threat capability for which the F–14 weapon system has been designed. By employing the highly efficient variable wing sweep technique and a high thrust-to-weight propulsion system, the F–14 can maneuver with—and out-fight—the enemy's cheap, simple fighter when such combat conditions might occur. But, with the added combat capabilities provided by long-range air-to-air homing missiles, and electronic defensive techniques for enhanced survivability, the F–14 can successfully engage the new missile-equipped Soviet fighters, anti-ship missiles and long-range bombers likely to be encountered in any future confrontation.

The associated cost factors of the F–14 result from designing for the missions it must perform against these threats. To suggest the substitution of the "simple 'Mig type', cheap" airplane for these missions is incongruous, and signifies an unawareness of the capabilities already in existence in the Soviet military arsenal.

Mr. PROXMIRE. Mr. President, I yield 5 minutes to the Senator from Oregon.

Mr. HATFIELD. Mr. President, this is the third year that a significant number of Members of the Congress have expressed deep concern about the proposed F–14 Navy fighter. It is useful to review the history of this debate.

In 1969, I was privileged to serve as chairman of the Military Spending Committee of Members of Congress for Peace Through Law. As my colleagues will remember, we wrote a report designed to stimulate the debate over certain proposed weapons systems. In our judgment, decisions over these weapons systems were so critical that they needed to be carefully examined by every Member of Congress, in addition to the consideration given them by the Armed Services Committees. The F–14 was one of those weapons systems.

In 1969, we were concerned that the projected costs of the F–14 and the Phoenix missile system could dramatically escalate over the Navy's estimates. We were concerned that because of the cost factor, there would never be enough funds to replace the current inventory of F–4's with anywhere near the same number of F–14's.

We were also concerned that the F–14's requirement to defend the aircraft carriers—its fleet air defense mission—would compromise its proposed air superiority role. Further, we expressed concern about the basic workability of the Phoenix missile system—the six missiles that are attached to the F–14 when it is supposed to defend the aircraft carriers against Soviet bombers or against missiles from surface ships.

In addition, we were also concerned about the entire question of the role of aircraft carriers in the conditions of modern warfare. This matter was debated extensively on the Senate floor in 1969. The basic question was this: If we find ourselves in an all-out conventional war with the Soviet Union at sea, would not our aircraft carriers be extremely vulnerable to the threat from Soviet submarines, guided missiles from surface ships, and even from the air? The contention made by many experts is that in the inevitable conditions of modern warfare, we simply can no longer plan to have our aircraft carriers defended in the event of full-scale conventional encounter with the Soviet Union. There may be many other roles for our carriers, but using them in such a war against the Soviets cannot be one. This bears directly on the F–14. As presently designed, with the Phoenix missile system, the F–14 has an essential mission to protect the aircraft carriers against a part of the Soviet threat in such a war. Therefore, a decision to go ahead with the F–14 assumes that we can protect our carriers against the whole range of Soviet capabilities in the event of a conventional war.

Finally, in 1969, we expressed our doubts about the fundamental presupposition behind all this—the possibility of a full-scale conventional war with the Soviet Union. We are presuming in all this that it is a likely possibility for us to enter into a conventional war with the Soviet Union, that in this war neither side would even use its tactical nuclear weapons—a small tactical nuclear missile, for instance, would easily eliminate a carrier task force—and that such an encounter would not escalate to a full strategic nuclear holocaust.

These are the kinds of assumptions which should bear the full weight of the Congress scrutiny. Further, we are better able to make judgments on these types of questions than on the technical performance capabilities of various weapons systems. Yet, these fundamental questions rarely seem to be asked by any of us in the debate over defense expenditures.

In today's modern nuclear world, and given contemporary political realities, I find it hard to envision the circumstances that would draw our Navy into a conventional, World War II type, shooting war with the Soviet Navy throughout the high seas. And I find equally difficult to envision such a conflict not involving tactical nuclear weapons, and not eventually leading to a full nuclear exchange. I would be interested in knowing just what the political circumstances or contingencies are that, in the view of the Department of Defense, are likely to thrust us into such a conventional war at sea with the Soviets.

I am not saying that there is no possibility of such an event. I am just saying that we should start talking about just how likely and how plausible such a war actually is.

So these are all the concerns we expressed during the initial debate in 1969.

During the debate, we chose not to propose the elimination of any funds for the F–14. We decided there was still time to answer the many troubling questions that were raised. So we merely proposed that the F–14 question be studied again, by the Armed Services Committee, and that no future funds be authorized until such an additional study, directed toward these questions, was conducted.

Furthermore, there was a precedent and further reason for such a study since the Senate had just adopted an amendment requiring a study of the proposed new aircraft carrier—CVAN–70.

But our amendment was opposed by the committee. We were told that the F–14 program had been studied and restudied to death, and that all the questions had been answered.

We were told that the costs of the F–14 would be stable, and that, in effect, we were being alarmist and meddlesome in our concerns.

So the Senate rejected the amendment simply requesting that this program be looked at a bit more carefully before another decision was made in the future, to commit more funds to the program.

What has happened since then? The Navy has revised their total projected buy from an original projection of buying 710 F–14's down to the current projection of the purchasing 301 F–14's. During the same period of time, the unit cost of the plane has risen from $11.6 million to $16.7 million.

The cost of the Phoenix missile, originally estimated at $219,000 per missile, has escalated to $400,000. When the F–14 carries its load of six—and, as has been pointed out, jettisons them into the sea if called upon to suddenly perform its air superiority role—it is carrying $2.4 million worth of equipment, which approaches the original costs of one complete F–4 fighter. The doubts as to the Phoenix's reliability have persisted as well.

Questions about the F–14's potential air superiority role have become more pronounced. It is now suggested—and even noted by the Washington Post in today's editorial—that the F–14 is actually less adequate in its fighter capability than the modified F–4 which it is to replace.

The concern over the vulnerability of carriers in a conventional war with the Soviets has continued. In fact, since 1969, funds for another nuclear carrier have not been authorized—a fact which at least reflects concern within the administration over the future role of aircraft carriers.

Finally, the F–14 and its contractor,

Grumman, have encountered the most serious cost and contract difficulties. These have been discussed in the greatest detail by the Senator from Wisconsin (Mr. PROXMIRE).

As a result of some or all of these factors, the $806.1 million authorization in this bill for 48 F–14A's was completely deleted by the House Armed Services Committee, and the entire matter came under special study and reconsideration within the Defense Department.

The concerns and doubts expressed about the F–14 on the floor 2 years ago have evolved into real and concrete problems which we all clearly recognize. But it is not too late for the Congress to redeem itself, and to revise its judgment.

To continue with the F–14, in the face of all that has been revealed, would be like Ford Motor Co. pouring more millions into the Edsel after its first year sales report came in.

Corporations have the wisdom and ability to recognize when they have planned products that fail to match their expectations. They know when to reverse a decision in light of new evidence.

Is it asking too much for the Congress, and the Defense Department to do the same? Particularly when the issue at hand is not just a mistaken investment, but potential injury to our national security.

It is no great sin to change one's decision. The American people understand that. But they will not understand the obstinate commitment to spend billions for a plane with parts costing twice the price of gold that turns out to be not much better, if any, than our present ones.

We propose to stop this program now, and invest money in pursuing the option of a light, cheap, unencumbered, truly air superiority fighter.

Mr. President, so that the record will be clear, I ask unanimous consent that the following documents be printed at this point. Members of Congress for Peace through Law report on the F–14 in 1969.

The Senate debate on the F–14 in 1969.

The MCPL report on Tactical Air in 1970.

Two speeches by the Senator from Wisconsin (Mr. PROXMIRE).

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

MEMBERS OF CONGRESS FOR PEACE THROUGH LAW

MILITARY SPENDING REPORT—1969

The Navy F–14 program

Summary

The F–14 is a new multi-mission carrier-based fighter currently under development for the Navy by Grumman. It is to replace the Navy's present F–4 Phantoms as a general air superiority fighter/escort in the mid-1970's. Carrying the Phoenix missile, it is to perform the fleet air defense mission of the now defunct F–111B against Soviet bombers and cruise missiles. It is also to have an air to ground attack capability.

The A model of the F–14, using engines, avionics and Phoenix developed for the F–111B is planned to be operational in 1973. The B model, using advanced technology engines, is planned to be operational in 1975. The C model, using advanced avionics, is planned to be operational in the late 1970's.

The F–14, as presently conceived, is an enormously complex and expensive weapons system. The Navy presently estimates the "unit flyaway cost" of the plane at less than $8 million. A conservative estimate of the total "systems cost" of the F–14 over a ten year period would be $15 billion.

Recommendation

Congress should not authorize $275 million in procurement funds requested for the F–14A in the FY 1970 budget pending Congressional review of attack aircraft carriers, and the requirement for a new carrier based aircraft and the Phoenix missile system.

Rationale and Discussion

A. Current status of program

1. *From F–111 B to F–14.* In 1968, Congress decreed the demise of the Navy F–111 B and authorized instead development of a new multi-mission Navy fighter, the F–14. The principal mission of the F–111 B was to be fleet air defense (FAD). It was to carry six long-range air-to-air Phoenix missiles and sophisticated avionics. Loitering at some distance from the fleet, the F–111 B was to counter supersonic enemy bombers armed with long-range air-to-surface missiles, and hopefully, to defend against surface-launched cruise missiles as well. The F–111 B program encountered numerous delays and rapid cost increases. Weight and size problems arose in connection with heavy components such as engines, sophisticated avionics and the Phoenix, as well as with the airframe, which was designed also to meet Air Force requirements for the F–111 A. There were also difficulties in mating engine to air frame.

The F–14 is the outgrowth of an "unsolicited Grumman proposal" of late 1967, together with an extensive Navy Fighter Study of early 1968, a pending Navy proposal for a new mid-1970's fighter (VFAX) and the demise of the F–111 B. The F–14 is to have several possible missions. It is to replace the Navy's F–4 Phantoms as a mid-1970's and 80's air superiority fighter and escort—a role which seems to have superseded the fleet air defense role in importance since 1968 Navy testimony before Congressional committees; it is to perform the fleet air defense mission of the F–111 B; and it is to have an air-to-ground attack capability.

2. *The F–14 A.* Grumman received the contract for development of the first version of the F–14, the F–14 A, in February, 1969. The F–14 A is to be a swing-wing, supersonic aircraft using the F–111 B's engines and AWG–9 avionics (airborne missile control system, including radars and computers). The avionics are to be redesigned for tandem seating, and for fire control of the existing Sparrow and Sidewinder air-to-air missiles as well as the Phoenix (still in development). The F–14 A airframe will use titanium for weight saving, and will be optimized, to the extent other missions permit, for maneuverability in "dog-fight" situations. The F–14 A is to have the capability of carrying one or more weapons systems in varying mixes—internal cannon, Phoenix, Sparrow, Sidewinder, conventional air-to-ground ordnance—depending on which threats materialize and which missions seem most important in any given situation.

Present plans reportedly call for procurement of fewer than 100 F–14 A's, for test, evaluation, training, and deployment. The target date for initial deployment with the fleet is mid-1973.

3. *The F–14 B and C.* Both the F–14 B and C are to use the airframe developed for the F–14 A. Both are to use advanced technology engines (higher thrust and lower weight than F–111/F–14 A engines) which are under joint development with the Air Force for possible use in AMSA and a proposed F–15 fighter. Target date for operational "B" engines is sometime in 1975. F–14 A's are to be retro-fitted with "B" engines, supposedly at minimum cost since the F–14 A airframe has been designed with the new engines in mind. The late 1970's F–14 C is to incorporate advanced avionics.

4. *Costs.* At present, unit "flyaway costs" of the F–14 are being estimated by Navy officials at something under $8 million. This estimate assumes a production run of some 460 aircraft in the A and B versions of the F–14, and the absence of unexpected technical problems and delays. Other estimates within the Administration are reportedly $2 to $3 million higher. The cost of procuring the Phoenix missile (currently estimated at some $219,000 per missile) as well as the cost of other missiles and ordnance, and probably, part of the cost of the avionics for the Phoenix (current cost for each Phoenix avionics unit: about $2 million) are not included in the "flyaway cost."

If the F–14 program goes according to plan, the Navy plans to replace most of its F–4's (Phantoms) with the plane, which means that the eventual "buy" of the F–14 could go as high as 1000. Estimates of the ten-year "systems" cost for the F–14 (R & D. procurement, spare parts, support, training, and maintenance) are classified, but are reportedly below unofficial estimates ranging from $20 billion to over $30 billion.

B. The argument for a new carrier based aircraft: Mid-70's role

Because an essential role of the plane is air defense for carriers, the case for the F–14 begins with the case carrier task forces. The Navy contends that carriers can play a vital role in a sustained conventional war with the Soviet Union or Communist China, in limited wars such as the Korean War or the current conflict in Vietnam, in show-of-force or deterrence situations in various areas of tension and confrontation, and perhaps even in tactical nuclear engagements. It is assumed that carrier forces can be effectively defended in these situations now, but that by the mid-1970's, present carrier-based airborne weapon systems and aircraft will be outclassed in both fleet defense and in fighter and attack roles by sophisticated Soviet capabilities.

C. Critique of argument: The Soviet contingency is unlikely

1. A full-scale, sustained conventional war with the Soviet Union seems an unlikely contingency today and for the foreseeable future.

2. If, however, we assume that such a contingency is possible, that it will not rapidly escalate to nuclear war or will not be stopped short of the brink after a few days; if we also assume that the Soviet Union will have the full range of sophisticated capabilities predicted for the 1970's—a large fleet of sophisticated attack submarines, a large force of long-range and medium-range supersonic bombers armed with stand-off missiles, a fleet of surface vessels armed with cruise missiles and following the U.S. fleet around—then carried task forces appear exceedingly vulnerable with or without the F–14. Even if the fleet is provided with the widest range of defense capabilities, it is probable that a full-scale Soviet attack on a carrier task force would be successful and not prohibitively costly.

3. If, on the other hand, we assume a full-scale encounter with the Soviet Union but *less* than the full range of Soviet capabilities that have been predicted for the 70's, the need for the F–14 is still open to doubt. In particular, some critics have questioned the need for a new fighter to meet a future Soviet bomber threat.

Chairman Mahon of the House Appropriations Committee commented thus during the 1968 hearings:

The bomber threat against the fleet, as you know, has been predicted by Navy officials for some time. It has not, of course, developed to date.

In a late 1968 report on the U.S. tactical

air power program by the Senate Armed Services Preparedness Investigating Subcommittee, the following points on the bomber threat are made:

The F-111B was designed primarily for fleet air defense against Soviet supersonic bombers. But that threat is either limited or does not exist; and therefore, we believe the Navy should re-examine the prime requirements for the VFX-1 (F-14A) as to its most important role, in the light of the most predictable threat to the fleet. We are concerned about the assignment of four missions to this single aircraft with potential degradation in its capacity to perform the primary mission.

D. Present capabilities suffice for show of force and deterrence contingencies

1. For show-of-force and deterrence in tension spots—the roles carrier task forces may be best suited for in the future—the Navy's existing defensive capabilities and aircraft can probably do the job. The alternative to building any new Navy fighter is to rely on the presently deployed advanced Phantom F-4 J's for the missions assigned to the F-14, and to produce more as necessary (the production line is scheduled now to close in 1972) with very substantial savings. Also, there are electronic counter-measures and point defense systems presently deployed or planned for the fleet for additional deterrence of potential threats to the fleet.

2. The Navy argues that maximum deterrent effect should be sought through a mix of several of the most advanced defensive capabilities—airborne, surface-based missile defense, and electronic counter measures. But it is probable, that as far as the Soviet Union is concerned, deterrence will be achieved as much by Soviet reluctance to directly engage U.S. armed forces, as by the deployment of the most advanced fleet air defense capabilities. The possibility of escalation to nuclear war is what counts most.

3. For show-of-force roles which do not directly involve the Soviet Union, it is also questionable whether the F-14 is necessary. The F-4 Phantom has been described as the "best fighter in the free world today." The F-4 J model is equipped with Sparrow and Sidewinder air-to-air missiles. Its range and the capabilities of its avionics are not as great as those planned for the F-14. But in dogfights in the exceptionally hostile air environment over North Vietnam, the Phantoms have proved a match for high performance Soviet MIG-21's.

F. Other contingencies also are problematical

Other contingencies in which it is contended that new advanced carrier-based aircraft may be essential include a full-scale conventional war with Red China; initial "surge operations" at the outbreak of a limited war; prolonged operations during a limited war; skirmishes off the coasts of small hostile countries; and show of force situations against Soviet allies, given aircraft more advanced than the MIG-21.

The contingency of a full-scaled conventional war with Red China seems almost as improbable as the comparable Soviet contingency. And even against Red China, carrier task forces—with or without the F-14—might be vulnerable, particularly when sailing near any part of the Asian land mass under Red Chinese control.

In most foreseeable sustained limited war operations, land-based aircraft can or should be relied upon. In limited war operations which might require carrier based aircraft and in "surge operations" and skirmishes, the argument for the F-14 rests on the assumption that prospective new Soviet missiles, aircraft, and other capabilities may be made available in quantity to smaller hostile countries. But this possibility, comparable to the Red China contingency, does not justify proceeding now with the F-14 program in all its present complexity and expense.

G. The F-14 program can be delayed for 1 year while it is reviewed by Congress

On the basis of the discussion above, any risks incurred by a delay of one year in the F-14 program appear fully acceptable.

Appendix

A. Questions concerning the F-14 program with Phoenix missile as now envisioned

1. Why a multi-mission plane?

By building the F-14 as presently designed the Navy may be spending large sums for the latest in engines, avionics, weaponry and airframe all in one plane that will perform its two principal missions—fleet air defense and air superiority—satisfactorily but at the expense of the highest possible performance of either one. For example, in order to get a better all-around air superiority fighter, the F-14's fleet air defense capabilities will be less than those of the F-111 B. It will not be able to loiter for as great a period of time or as far from the fleet as the F-111 B; nor will it carry as many as six Phoenix missiles. Nevertheless, for a reduced fleet air defense capability, deployment of the Phoenix is still being planned.

The Phoenix missile is an enormously complicated and expensive weapons system which is still under development. Even though equipped with the latest in devices to ensure that it will reach its targets, there is the possibility that the technology of effective counter-measures may render it obsolete shortly after deployment. Moreover, each Phoenix weighs approximately 1000 pounds. Even though the F-14 need not carry a full complement of Phoenix, or any at all in the performance of certain missions, the airframe has to be designed to carry it and gains in weight thereby. Similarly, the sophisticated avionics for the Phoenix and other weapons systems adds weight.

The Navy argues that the F-14 airframe has been designed for high maneuverability in "dogfight" situations when the plane is not carrying the Phoenix, and that the capabilities of the Sparrow and Sidewinder are significantly increased by the F-14's avionics. It also argues that for an acceptable increase in costs and in degradation of the "dogfighter" capability, it gets a plane capable of meeting a wide spectrum of possible threats.

Taking into account the most likely contingencies for the fleet and alternative defense systems, however, the argument for a multi-mission fighter—particularly one designed to carry the Phoenix for fleet air defense—loses much of its force.

Navy pilots have reportedly expressed reservations about the complexity and weight of the weapons systems and avionics planned for the F-14. If, after Congressional review, a decision to go ahead with the F-14 is made, consideration should be given to building a smaller, less costly fighter. Such an aircraft could be less laden with heavy avionics—giving a premium to high maneuverability for "dogfights" and other air superiority missions.

As for the Phoenix, if it is decided that the system is sufficiently reliable, and that plausible threats justify costs for deployment, consideration should be given to adapting an existing aircraft to carry the system. Navy officials say they have studied this alternative, particularly in connection with the A-6, and that substantial modifications of the aircraft and costs would be involved, as well as problems of compatibility in performance of the aircraft and the missile. These conclusions should be re-examined if the case for dropping the Phoenix capability from the F-14 is accepted.

2. Why build any F-14A's? Why not wait for the F-14B?

Some critics of the F-14 program, both within and outside the Administration argue strongly that the F-14A will be only marginally superior to the fleet's present Phantom's because it will use the heavy engines, avionics, and Phoenix missile from the F-111B. They suggest that the F-14 airframe development should be stretched out until the advanced technology "B" engines become available eighteen months to two years from now for development with the airframe, and that plans to procure any F-14's with present engines should be cancelled. The higher-thrust and lighter-weight engines being developed for the F-14B appear to promise significantly higher performance for this model even if it carries the Phoenix and presently planned avionics.

Navy officials argue that the F-14A is needed as a hedge against possible threats and any slippage in "B" engine development and that a two year stretch-out in the program will be costly and entail delays in necessary R. & D. for the whole F-14 program.

The desirability of proceeding with development and procurement of the F-14A as presently planned should be explored in the Congressional review recommended in this paper. This review itself will entail some stretch-out in the A program, and might entail a postponement in the present target date of mid-1973 for deployment of F-14A's. But the F-14B, the model the Navy is most anxious to acquire as the air superiority fighter of the future, will become operational in 1975.

B. Possible savings

The FY 1970 budget request for the F-14 breaks down as follows in total obligational authority: $275 million for procurement for six test and evaluation models of the F-14A and long lead-time items and spare parts; $175 million in R. & D. for work on the F-14A; $50 million in R. & D. for the Navy's share of development costs of the "B" engine and for F-14C avionics; $18 million in R. & D. for the Phoenix.

Estimated savings on the F-14A: $275 million in FY 1970 if the proposal in this paper is adopted; perhaps $1 to $2 billion over the next five years if the decision is taken not to procure any A models of the F-14. However, if an increased number of F-14B's are procured to fill in for the "A" models, these savings might in the long term amount only to those realized on the "A" engine and miscellaneous development costs peculiar to the F-14A.

Estimated savings from dropping the Phoenix system from the F-14 and perhaps some electronics for a less complex and less costly F-14: No reliable estimate available. The savings should be substantial.

Estimated savings if the whole F-14 program is cancelled, at the very least, perhaps $10 billion if account is taken that additional Phantoms or other aircraft would be procured instead.

Mr. HARTKE. Mr. President, those of us who have offered amendments to the pending military procurement authorization bill share with every other Member of this body a determination to keep America's defenses overwhelmingly powerful. Every one of us recognizes how vital it is, not only to the United States but to all the people of the non-Communist world, that our military power remain sufficiently great to deter potential aggressors. There is not a Member of the Senate who does not understand the bitter principle of 20th century international politics—that weakness does not prevent war, it invites it.

Our efforts during these long weeks of debate have in every case been directed toward the elimination of what we believe to be

waste and inefficiency. We have proceeded on the assumption that 5, 10, 20 billions of dollars expended on unnecessary or gravely questionable weapons systems is that much money wasted—and America weakened by precisely that amount. In short, Mr. President, the issue has never been between those who favor a strong America and those who favor a soft, flabby debilitated America. The issue has always been one of differences of judgment among the 100 U.S. Senators every one of whom is passionately dedicated to keeping America powerful, proud, and free.

It is in that spirit that the distinguished senior Senator from Oregon and I offer our amendment to the pending bill.

Mr. President, the military authorization bill before us contains $450 million for the Navy F–14 fighter. This is only the first installment on an enormous program. The 10-year cost to buy and operate F–14's for the Navy and Marine Corps has been estimated at $25 billion—over three times as much as the administration estimated for the ABM program. The F–14 program has been the center of controversy within the Department of Defense for the past 2 years. The issue is not whether the Navy should develop a new fighter to replace the F–111 and F–4; there is widespread agreement that they should. Rather the controversy revolves around the type of fighter that should be developed.

It would hardly seem that the floor of the Senate is the appropriate place to discuss the design of a new Navy fighter. However, there is much more involved in this debate than the shape of the wing and the size of the engine. The issues involved in the F–14 decision range from broad national policy regarding the type of wars we want to prepare to fight, to crucial assessments of the nature of air warfare in the future. The decision that is made will have profound effects on both the capability and cost of our tactical air forces in the 1970's.

In just a moment, I will discuss these issues in more detail. For the present, I can illustrate the magnitude of the decision by pointing out that critics of the F–14 program claim that the Navy can develop a much better air-to-air fighter and at the same time reduce the 10-year costs by as much as $15 billion.

Just who are these critics? First, and most important, there is a host of critics among the Navy fighter pilots who will have to fly the new aircraft. The question of the fighter design has been the subject of heated debate within the Navy for several years. It is an open secret that the Navy pilots did not like the F–111B. When the F–111B was canceled, many of the fighter pilots tried to get the admirals to develop the small, simple, and very maneuverable fighter that they believed would be essential to meet the type of fighter the Soviets can develop in the mid 1970's. The pilots were overruled, however, by Navy management. Instead of a single-place, 30,000-pound maneuverable fighter, they got a two-place, 55,000-pound missile launching platform. Pilots operating fighter squadrons are disappointed by this decision.

When the pilots were stifled within the Navy, their cause was taken up by a group of civilians in the Department of Defense. However, these civilians have been no more successful at convincing the top level of DOD management than the pilots were at convincing the admirals.

In view of the magnitude of the issues involved in this dispute, both in terms of our capability to fight successfully in future wars and in terms of cost, it would seem that the issues should be subjected to widespread public debate. Yet, while the amount of money involved is almost twice as much as that associated with the ABM program, there has been no public debate. The primary reasons for this are the lack of knowledgeable individuals outside of the Defense Department who are free to speak up and express the alternatives and the cloak of secrecy placed around military programs. It is in the national interest that both of these constraints be removed in the future. The first can be removed by fostering the establishment of competent research groups which do not depend on the Department of Defense or the aerospace industry for financial support. The second can be removed by insisting that only essential information be withheld from the public on the basis of security classification. The recent ABM debate indicated how far it is possible to go in declassifying essential information without endangering national security.

We should insist on similar openness in other areas as well. If there has been no public debate of these issues, at least we could hope that the Armed Services Committee would carefully scrutinize the issues before reporting out the authorization bill. I am sorry to say that despite the fact that our colleagues must have been aware of the controversy over the F–14, the Armed Services Committee did not call one single witness to present the arguments against the F–14. In the absence of critical review in either the public press or in the Senate committees, I have asked the Secretary of Defense to release seven specific documents which present the other side of the story. I have yet to receive the requested material.

Mr. President, it is unwise for Members of this body to vote authorization for such a huge sum of money without thoroughly exploring the alternatives available. Some may argue that the issues are too complex to be understood by the lay person. The issues in this case, however, are considerably less complex than those in the ABM dispute; and the costs and impact to our national security are just as large. Even if the administration refuses to cooperate—indeed especially since the administration refuses to cooperate—we should thoroughly air the pros and cons of the F–14 program. While I would have liked to have more evidence, I will try to outline the case for an alternative to the F–14 program.

There are two basic issues that must be addressed in deciding on the type of fighter the Navy should develop to replace the F–14. These are the types of wars we wish to be prepared for and the nature of air warfare in the future.

The F–14/Phoenix concept has evolved from longstanding Navy interest in protecting the carriers in a nuclear war. The concept originated in the 1950's when we were planning our forces primarily for a nuclear war with the Soviet Union. At that time it was quite clear that a single nuclear weapon delivered anywhere in the vicinity of a carrier would wipe out an entire task force. Thus, to protect their nuclear attack mission, the Navy desperately needed a weapon that would destroy 100 percent of the Soviet missile-launching bombers in a massed attack against the task force. The original proposal was called Eagle/Airee or Missileer—it consisted of a low performance, long loiter, missile platform and an air-to-air missile of unprecedented size and complexity.

The Eagle missile program was canceled in the early 1960's due to technical infeasibility. However, the Navy never gave up on the missile. It resubmitted the idea, renamed the missile—appropriately enough, "the Phoenix"—and tied it to the ill-fated F–111B airplane—again with the idea of providing a platform of launching long-range multishot missiles at formations of enemy bombers.

The Navy realized that the F–111B, overburdened with the complex electronic systems needed to launch and control the Phoenix, would not meet its needs for an air-to-air fighter in the 1970's. Even in the early 1960's it had proposed another, smaller fighter to perform the essential air combat or dogfight job.

In 1968 the Navy finally divested itself of the F–111B. The reason it offered was that the F–111B, while adequate for fleet defense, could not perform the air-to-air combat task adequately. It could not dogfight on even terms with a Mig 21, let alone the more advanced Soviet fighters of the late 1970's.

After offering this rationale for cancelling the F–111B, the Navy again tied the Phoenix missile to its so-called new "Fighter"—the F–14. The Phoenix missile, with its associated two or three tons of supporting equipment, is the primary reason why the F–14 is as large, heavy, unmaneuverable and expensive as it is. Once again the Navy has designed a low-performance, long-loiter time, missile-launching platform instead of a fighter. The ex-Secretary of the Navy, Mr. Ignatius, indicated that the F–14A would only be "comparable" to the current Mig 21 in a dogfight. My information indicates this is a decidedly optimistic assessment. Obviously, the F–14A will be much worse than the Soviet aircraft we can expect to face in the mid and late 1970's. Nevertheless, the Navy is planning to buy 67 of these inferior F–14A's at a total cost which would be as high as $1.4 billion.

The Navy argues that the F–14B, which will have an advanced engine with more thrust, will be a better dogfighter than the F–14A. The F–14B, however, will be just as heavy and have the same undersized wing as the F–14A. Thus, it will be considerably less maneuverable than it could be without the Phoenix and all the associated fleet air defense compromises. We know it will not be as good a dogfighter as the Air Force F–15. Nor can it match the even better performance that the Soviets can build into their next fighter generation.

Quoting Navy Captain Holmquist:

"Modern technology and the wonders of Avionics will certainly allow us to combine all of the functions and weapons of an all-weather attack aircraft, a fighter, and an interceptor into one aircraft. However, such an airplane would be expensive, complicated, difficult to maintain, and training a pilot and crew would present formidable problems. More important, if we allow the enemy the same technology, he can build single-purpose aircraft which would be superior to our multi-purpose aircraft in each of the missions it performs.

In view of this history it is important to examine the justification for the Phoenix in some detail.

Since the nuclear attack mission of the carrier has lost its credibility, the primary justification for the Phoenix is now defense against the same massed raids of Soviet naval bombers launching the same missiles, but armed with conventional rather than nuclear warheads. It is essential to realize that no Communist nation in the world beside the U.S.S.R. has even the beginnings of a naval bomber fleet. The Soviet naval bomber fleet itself, as Representative MAHON has pointed out, never materialized into the massive forces the Navy has been predicting for years. Thus, the Phoenix must be justified for defending the carrier in waters adjacent to the Soviet Union in a massive conventional war, with U.S.S.R. forces fully involved. Yet, under these improbable circumstances, the Soviet bombers are by no means the worst threat.

The irony of the situation is that large Soviet submarine forces make it impossible for our carriers to operate in either the North Sea or the Mediterranean, with or without Phoenix. Some here will remember that it was impossible in World War II for either British or American carriers to launch strikes from the North Sea against Germany. The situation for the carrier today is much worse; its speed has barely increased while the submarine's speed has increased by a factor of five with commensurate reductions

in noise and detectability. Not only is the carrier far more vulnerable, it is also not needed since there are over 100 airfields of 8,000 feet or longer in Central Europe. The Air Force has indicated that this is more than enough to handle all the tactical air needed in Europe. Since the F–4s are more than adequate against the few nonmissile-launching bombers available to the less-developed Chinese or the East Europeans, we find ourselves in the paradoxical position of incurring the enormous cost and the fighter deficiencies of the F–14/Phoenix combination in order to defend the fleet in a theater of war where it cannot and need not be used.

The overemphasis on fleet defense that has led to the F–14/Phoenix has taken our attention away from a much greater need to develop a truly superior air-to-air fighter. If the Soviets follow their traditional policy of developing small, simple, maneuverable fighters, they can produce an aircraft in the mid 1970s that will be significantly better than our F–4's. Although we have not yet seen a Soviet fighter that is a better dogfighter than the Mig 21, we need to prepare against such a threat since the leadtime to develop a new U.S. fighter is much longer than the intelligence leadtime we will get when the Soviet produce theirs.

The Navy has, in effect, argued that the day of the dogfight is over; that in the future we can count on missiles to shoot down enemy fighters at long range. The fighter pilots have been hearing this story for a long time. They simply do not believe it. The R. & D. community has been promising better missiles for 20 years. Yet, the fact remains that fighter-to-fighter engagements have changed little since World War II. Despite very optimistic estimates and costly modifications before the Vietnam war, virtually all fighter pilots feel strongly that fighters must have guns and that the guns will be used for the majority of kills. They believe that missiles, particularly complex ones, will be unreliable, easy to outmaneuver and easy to countermeasure. We have not shot down any aircraft in air-to-air combat with missiles used outside of visual range. The position of the fighter pilots is summed up in the following quote, again from Capt. Holmquist:

"For the fighter role, speed, excess thrust, buffet boundary, roll rate, maneuverability, and altitude must be maximized, since the style of fighter-to-fighter engagements has changed little since the days of World War II and Korea."

The Navy claims that the F–14 is also optimized for air-to-air combat role as well as for fleet defense. This assertion is absurd on the face of it. First, the Air Force F–15, which will have to face the same enemy aircraft, weighs much less than the F–14 and is much more maneuverable. Clearly, the F–15 will be a better aircraft for air-to-air combat.

More important, however, there have been a series of reports in the trade journals about an alternative fighter that could be developed which would be much better, as well as much cheaper, than even the F–15. This aircraft, which has been called the F–XX or the VF–XX in the Navy version, has been described as a simple, uncompromised, single seat, single engine, under 30,000-pound fighter which derives maximum benefit from the advances which have been made in aerodynamics and engine technology to achieve an unprecedented level of agility. In addition to a gun, the aircraft would be armed with simple heat-seeking missiles, which have been by far the most effective missiles we have used in Vietnam.

There is no doubt that an aircraft of this type would completely dominate the F–14B in air-to-air combat. If we could build it, we certainly must be concerned that the Soviets might, since it is quite similar in concept to their traditional approach. Given the past performance of the missile developers, fighter pilots are simply not willing again to put their hopes and their lives on aircraft of inferior performance which rely on untested "paper" weapons for survival and victory. They want a fighter, not a missile-launching platform.

So far, I have only spoken about performance. However, not only would a simple fighter like the F–XX outperform the F–14, it would also be very much cheaper. Rough estimates indicate that the 10-year cost for this type of aircraft would be less than $10 billion as opposed to $25 billion for the F–14. The difference in cost between the two programs is twice as much as the total cost estimated by the administration for the ABM program.

The questions I have raised merit further study. Accordingly, the amendment we have proposed to the authorization bill would require that Congress undertake a study prior to April 30, 1970. This study would be an investigation of the requirements to be fulfilled by future carrier-borne aircraft and the projected capability of the F–14 to fulfill these requirements in the most effective and efficient manner.

This study will not delay in the slightest way the introduction of a new fighter into the Navy.

There is one final issue that concerns me about this program, Mr. President. The administration is proposing to use the total package procurement—TPP—concept with token modifications for procuring the F–14. Once again, we are undertaking a very complex technical development program based on "paper" estimates made by the contractor for the performance, risks, and costs for a new airframe, new fire control, and new missile. The DOD has arranged development and procurement so highly concurrent, that we will have to appropriate as much as $3 billion before we find out whether the F–14 even comes close to meeting specifications, much less whether it has any usefulness as a fighter.

It seems hardly necessary to stress the obvious problems with this approach to aircraft development. TPP has led to the extreme cost overruns in the C–5A program. Already, independent cost estimates have been made which predict as much as 50-percent overruns for F–14.

TPP has also led to the technical disaster with the Cheyenne helicopter. The same people in the Pentagon who are telling us that there is little risk in the F–14 program, told us the same thing about the Cheyenne based on the same type of "paper" studies by the contractor.

Despite promises to reform the procurement procedures and to insist on testing prior to production commitment, the very first major aircraft program proposed by the new administration fails to meet these promises.

I completely concur with the very sensible recent study prepared by GAO for Senator HART on parallel undocumented development. Given the technical risks associated with a complex fighter development, it would seem reasonable to insist on competitive fly-off of prototype aircraft prior to a selection of aircraft for production. While this approach may seem more costly and time-consuming at first, it will assuredly lead to a better end product, and, in the long run, is likely to produce a usable fighter at less total cost and in a shorter period of time. When faced with a competitive fly-off, the contractors have the incentive to get every ounce of performance possible out of their designs. They do this by keeping their best people on the job throughout—as opposed to the usual practice of assigning the good people to the program only until the contract is awarded and then taking them off to bid on the next one.

The competitive prototype approach permits meaningful cost estimates for the production aircraft since the contractor's bids are based on hardware rather than paper. Since the R. & D. costs are only about 4 percent of the 10-year cost, even small savings in production and operating costs can far outweigh any extra R. & D. costs that might be incurred.

In addition, the aircraft might even be available sooner since the competitive prototype approach would reduce the probability of needing extensive changes to meet performance goals—as on the F–111B and Cheyenne helicopter programs.

Finally, Mr. President, I again find it ironic that the services have complained bitterly about the lack of aircraft development programs in this country. We are told that we have not built a new fighter since the F–4 was flown in the 1950's. They stress the fact that the Soviets have flown about one new prototype each year and that this approach gives them a wide range of alternatives from which to choose a production aircraft. Yet, despite these claims, neither the Navy nor the Air Force has proposed the competitive prototype development approach for their new fighters.

These are questions and concerns that merit the special and specific attention of Congress. To gain that attention is the purpose of the amendment which Senator HATFIELD and I offer today.

The PRESIDING OFFICER. Who yields time?

Mr. STENNIS. Mr. President, I yield to the Senator from Nevada (Mr. CANNON) such time as he may desire.

The PRESIDING OFFICER. The Senator from Nevada.

Mr. CANNON. Mr. President, I yield myself 10 minutes.

I wish to respond to the statement of the Senator from Indiana. I want to emphasize from the outset that the Armed Services Committee, charged with the responsibility for the Senate as a whole with authorizing major military weapons systems, reviewed the justification for the F–14 program in detail, which is apparently what the Senator from Indiana is attempting to have done again.

In that connection, I would like to point out that already there are over 48 studies that have been completed in connection with the F–14 program. I ask unanimous consent to have printed in the RECORD at this time a "Sampling of F–14 Phoenix Applicable Studies" for the past several years, covering the F–14, engine problems, and the associated problems of the Phoenix missile, totaling 48 studies.

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

SAMPLING OF F–14/PHOENIX APPLICABLE STUDIES

"Navy Fighter Study" Vol I 28 March 1968.—Analysis of costs, performance, and schedules of alternative aircraft and their capabilities in Fleet Air Defense and other fighter roles.

"Navy Fighter Study" Vol II Threat Analysis 28 March 1968.—Analysis of anticipated threats and likely tactical situations for U.S. Naval Forces during the mid 1970's.

Chief of Naval Operations Secret Report "The Navy Fighter Program" May 1968.—This report presents the entire rationale for the VFX (now the F–14) fighter program. It includes threat assessment, consideration of alternatives, force level and cost effectiveness implications, etc.

Chief of Naval Operations Secret Report "Navy Fighter Study—Phase II" 20 May 1968.—This study reexamined the operational effectiveness contributions of the AWG–9/Phoenix and the AWG–10/Sparrow systems and again concluded that the AWG–9/Phoenix capabilities are essential to meet the broad spectrum of threats.

Research Management Corporation Report No. S–02094 of 20 March 1968.—Independent cost estimates for the F–14 based on statistical analysis of the cost of high performance aircraft produced over the past several years.

Development Concept Paper for VFAX of 23 Jan. 1968.—Analysis of the pros and cons for developing a multi-mission VF and VA aircraft for the mid 1970's.

"VFX Weapons System Proposal (U)" The Vought Aeronautics Division of the LTV Aerospace Corporation Ser 2–71200/8L–193 of 30 Sep. 1968.—In 28 Volumes. An exhaustive and complete technical proposal for the VFX aircraft containing design philosophy, management methods, risk analysis, cost effectiveness studies, service suitability, and comprehensive reports of studies, wind tunnel tests, laboratory experiment, and construction methods. The proposal included studies of advanced version and effectiveness.

"Model 225 Proposal for Engineering Development and Production (U)" Ser 747–07 2095 of 1 Oct 1968. The McDonnell Aircraft Company.—In 33 volumes with material as described for the LTV proposal. For the VFX.

"Proposal for VFX High Performance, Carrier Based Fighter Aircraft Weapon System, Contract N00019–69–C–0047 (U)". The Convair Division of the General Dynamics Corporation, Report No. GDC–ACV–68–001 of 30 Sept 1968.—In 23 Volumes with material as described for the LTV proposal.

"Proposal for High Performance Carrier Based Fighter Aircraft Weapon System VFX (U)". The North American Rockwell Corporation Serial ADO–68–32 dtd 28 Sept 1968.—In 32 Volumes with material as described for the LTV proposal.

"Contract Definition Report and Engineering Development Proposal for the VFX Weapon System (U)". Grumman Aircraft Engineering Corporation, Serial FSR–303 dated 1 Oct 1968.—In 37 Volumes with material included as described for the LTV proposal.

"The Air Target", Vol I of Rationales for Exploratory Development Goals. (U) By the Exploratory Development Division of the Naval Material Command Headquarters dated 11 June 1968. (Secret).—Development goals for air target threat counter in the 1980 time period are exhaustively analyzed to derive parameters and values.

"Potential Effects of Defensive Electronic Countermeasures in Fleet Anti-Air Warfare (U)" by AM Salyberg. Center for Naval Analyses NAVWAG Research Contribution No. 79 dated February 1968. (Secret).—The report discusses the use of missile in an ECM environment.

"Advanced Navy Multi-mission aircraft Vulnerability Study (U)". The McDonnell Aircraft Company Report G095 dated 1 June 1968 (Secret).—The study analyzes aircraft design considerations, including cost tradeoffs, for reducing vulnerability to combat damage.

Passive Ranging in the PHOENIX Missile System (U) Final Report in AirTask A05–510–C49/202–1/A10700–00 dated 19 Sept 1968 (Secret).—The report concerns the analysis of passive ranging techniques used by the Phoenix in an ECM environment.

"Phoenix Performance Data Report (U)," January 1968 (Confidential).—This report presents the current estimates of the trajectory and miss distance performance of the AIM–54A missile, and describes in detail the basis for these estimates. The missile configuration and its parameters are described, and studies performed since December 1963 that led to this configuration are presented.

"Air Attack Threats for the Evaluation of the F–111B/Phoenix Weapon System—1970–1976 Time Period (U)," NADC–AW–6617, 22 December 1967 (Secret).—This report presents detailed estimates of a spectrum of potential enemy threats to task force and beachhead operations and enemy airborne defenses against friendly strike missions. The report is intended to be used as a source of information on hostile capabilities in the 1970–1976 time period for use in air warfare simulations of the F–111B/Phoenix Weapon.

"Fighter System Studies Operation Analysis" Grumman Aircraft PDR–OP–174 June 1967.—Generalized aircraft designs used in conjunction with analytical evaluations to define pertinent design areas for development of point designs, which are then evaluated through the analytical and simulation methodologies.

"VFAX Increased Fighter Performance Boeing Report" PD 7026–3 of 17 January 1967.—Evaluation of threat, operational usage of VFAX, aircraft design characteristics, and performance capabilities.

"VFAX Summary Description of Aircraft Design and Engine Recommendations" Vought Aeronautics Division Report No. 2–55400/7R–2473 of 15 December 1967.—A six volume report containing the design philosophy and substantiating data for an airframe and engine combination fulfilling the requirements of TDP 11–06R1 for VFAX aircraft.

"VFAX Aircraft Design Study" McDonnell Douglas Report C–125395 of 15 December 1967.—Performance considerations and design criteria leading to the selection of a VFAX engine to meet the requirements of TDP 11–06R1.

"FAX–1 Study" North American Aviation TPA–049, Task 1 (NA–67–685) dated 8 September 1967 (Secret).—An evaluation of the potential cost effectiveness of various aircraft systems in the performance of tactical fighter and fighter/bomber missions. (Four volumes).

March–May 1967, NAVAIRSYSCOM "Fighter Comparison, F–4J, F–4 (VS) VFAX, F–111B."—A comprehensive technical, cost and delivery comparison of several alternative fighter aircraft programs conducted inhouse and presented within the Navy.

12 October 1967, Grumman Technical Presentation, "A Cost Effective Approach to meeting the 1970–1980 Fighter Force Level Requirements."—Grumman's analysis and proposed solution to the fighter problem.

Advanced Fighter Aircraft Design Studies" by four (4) major airplane producers. December 1967—

(a) Grumman Model 303 submitted by letter dated 28 December 1967.

(b) Vought Aeronautics Division (LTV) Model 505 by letter dated 28 December 1967. This was followed by a letter submittal dated 26 April 1968.

(c) North American Rockwell Model 323 by letter dated 29 December 1967.

(d) McDonnell Douglas Model 225A informally presented on 19 December 1967 and submitted on 31 December 1967.

Foregoing studies verified the Navy's inhouse fighter studies and provided the backup technical and cost data for the Navy Fighter Study of early 1968.

"VFAX Technical Development Plan (TDP)" dated 31 May 1967.—An updating of the total development plan originally issued in 1966.

"NASA Presentation to Defense Science Board on Advanced Fighter-Attack Aircraft, LWP–447" dated 11 July 1967.—Study of FX and VFAX aircraft requirements with state of the art.

"Lockheed and Vought Aeronautics Presentation to Defense Science Board, Tactical Aircraft Task Force Meeting" 11 August 1967.—Study of FX and VFAX aircraft requirements.

"The 1975–1980 Fighter/Attack Aircraft Advanced Planning Study, Final Report (U)", (Six Volumes) by the McDonnell Aircraft Corporation. Report B151, Vols. I to II dated 11 March 1966 (Secret).—The study develops the threat, appraises the technology, compares the effectiveness of concepts and recommends development toward optimized systems.

Tactical Aviation Study—Progress Report Phase I 12 May 1966.—Develop an analytical rationale for the composition of future carrier air wings, for the ratio of carrier air wings to carrier decks, and for total carrier force level.

"Air Attack Threats for the Evaluation of Weapon Systems in an Anti-Air Warfare Simulation (AAWS), 1968 to 1975 Time Period (U)," NADC AWRD TM–2–66, 18 January 1966 (Secret).—The purpose of this memorandum is to define selected enemy threats in sufficient detail to permit their use in comparing weapon system effectiveness in an anti-warfare simulation. Three battle situations are provided: a fleet anti-air mission; a beachhead air superiority mission; and a strike-escort mission.

A VFAX Parametric Aircraft Design Study Report ASR–415–3 of 11 November 1966.—Tradeoffs between engine size, wing area, takeoff gross weight, and costs for VFAX type aircraft.

The Fighter Gap—Naval War College by Capt. F. T. Rooney May 1966.—Evaluation of the nature of fighter aircraft, the mission, and operational criteria with resultant aircraft design requirements.

Boeing Preliminary design and Trade Study, High Performance Multi-Mission Fighter/Attack aircraft. Acceleration Trade Study. Contract NOw 65–0491–C dated April 1966.—One of the contract studies conducted to determine the sensitivity of requirements prior to a competition for a new fighter covered effect of performance requirements on size, cost, and effectiveness; compared several design approaches with foreign threat designs.

1966 FAX Study Review Team.—DDR&E sponsored group investigating Air Force and Navy fighter requirements for the FX and VFAX, respectively.

"Air Defense Expected Kill (U)," Veda Memo CRV–18/551, 30 September 1966, (unclassified).—This memo consolidates the explanation of the statistical technique used for determining the expected kill for a sequency of interceptors each carrying a mixed missile load against a wave raid.

"Warhead Lethality Comparison (U)," COMNAVMISCEN letter to COMNAVAIRDEVCEN, serial no. 00133 of 4 August 1966 (Secret).—This letter presents the results of a lethality analysis of the AIM–54A missile against three selected threat targets using specified initial conditions and fuze/warhead parameters. (4 pages)

"Warhead Lethality Comparison (U)," COMNAVMISCEN letter to COMNAVAIR DEVCEN, serial no. 00183 of 21 October 1966 (Secret).—This letter compares lethality estimates for the AIM–7F, AIM–9D, and AIM–54A missiles. It also revises some data presented in reference 2 above. (5 pages)

Hughes Conf. Report B1940 "Phoenix/VFAX Study" 28 Sept 1966.—This study was performed after the need to replace the F–111B became increasingly evident. The study demonstrated the feasibility of reconfiguring the AWG–9/Phoenix system to make it compatible with a tandem, smaller, high performance fighter of the VFAX class.

Grumman Conf. Report ASR–415–2 "VFAX/AWG–9 Integration Study" dated 13 October 1966.— Study performed under Contract NOw66–0567–C, investigated the feasibility of integrating a reconfigured version of the AWG–9 weapon control system and the Phoenix Missile into the VFAX class of fighter aircraft.

Anti-Air Warfare Study Contracts.—

(a) McDonnell Aircraft, NOW65–0667–f dated 13 Aug 1965.

(b) Grumman Aircraft, NOw65–0613–f dated 18 June 1965.

Contracts covered the analysis and preliminary design of fighter aircraft to replace the F–4 and F–111B airplanes. The McDonnell study covered an improved version of the F–4 while Grumman investigated major redesigns of the F–111B, new airplanes, and A–6 modifications.

BuWeps Secret Report No. R–5–65–5 "Cost Effectiveness Comparison of F–111B with Selected Alternatives (U)" dated March 1965.—This study concluded that contingent upon the F–111B being a good carrier based aircraft, it was a cost effective system but dominated by the superior characteristics of the AWG–9/Phoenix system.

NASA Evaluation of F–14, 7 Aug 1969.—Independent evaluation of the F–14 performance substantiated by extensive wind tunnel tests and analytical evaluations. Report verified NAVAIR evaluation of F–14 capabilities.

VFX Development Concept Paper, June 1969.—Reviews the threat, methods of countering the threat, alternatives, cost effectiveness, and OSD decision to proceed with the VFX concept.

BuWeps Secret Report No. R–5–65–1, Jan. 1965 "An Evaluation of Attack and Attack Fighter Aircraft for the 1970's (U)".—A comprehensive systems analysis of a wide variety of alternative systems and force mixes. This study provided the basis for the SOR (Specific Operational Requirement) for the VFAX program which later evolved into the VFX program.

BuWeps Confidential Report No. R–5–61–14/2 "Factors Determining the TFX (N) weapon System Characteristics" dated September 1962.—An early weapon system trade off study that led to defining the AWG–9/Phoenix weapon system characteristics and clearly demonstrated the need for a long range, multi-shot missile system for fleet air defense.

Project Stone Final Report Hughes Report PMS 86–1/2141 21 February 1969.—Comprehensive analysis of Phoenix capability against cruise missiles and their launchers.

Phoenix Performance against Multiple Barrage Jammers Hughes Report 2143.20/17 21 February 1967.—Study results with three encounters with multiple jammers.

Comparison of Multi Mission Aircraft in a Seven Day Limited War Compaigns Analysis (U) Final Report Secret NADC—WR–6528 Naval Air Development Center, Johnsville, Pa. 30 Dec. 1965.—A computerized escort-self escort comparison of the proposed VFAX aircraft and existing aircraft. Mix ratios were examined for combinations of attack and multi-mission aircraft. The VFAX/A1B combination carrier loading was superior to the F4J/A7B and unescorted A7B.

"One versus two-can crew study final report (U)" North American Autonetics Report C6–94/312Q DCN 66AN 51181. Dated 31 Jan. 1966 (Secret).—This study, performed under Bureau of Naval Weapons contract, investigate crew size requirements for a 1970–1975 time span multi-mission (air-to-air/air-to-ground) type aircraft.

"Evaluation of Expected Kill of Mixed Loadings Against A Wave Raid (U)," Veda Memo CRV–15/551, 20 July 1966, (Unclassified).—The memo develops a generalized statistical technique for determining the expected kill for a single interceptor carrying a mixed missile load against a wave raid. This computational technique yields a precise value of expected kill as a function of interceptor combat time (generated by STAB II) and missile firing doctrine.

"Expected Kill for a Cluster of Targets Protected by a Jammer (U), "Vedo Memo TEM–2/551, 26 August 1966 (Confidential).—This memo explains a preliminary statistical technique for determining the expected kill when several missiles are launched against a cluster of targets which are screened by a single ECM aircraft.

Mr. CANNON. As a matter of fact, Senator STENNIS appointed me chairman of a special Tactical Airpower Subcommittee on February 28, 1969. Distinguished colleagues serving with me on this subcommittee were Senators SYMINGTON, JACKSON, YOUNG, THURMOND, TOWER, and GOLDWATER.

Senator STENNIS asked specifically that we concentrate on the justification for both the F–14 and the F–15 fighter aircraft programs.

Members of the Tactical Airpower Subcommittee spent several weeks reviewing 15 major tactical weapons and weapon systems. As a result of our deliberations we recommended the denial of fund authorizations in the amount of $558.5 million in various tactical weapon systems.

After extensive briefings, the subcommittee recommended that the F–14 and F–15 programs be supported by the full committee. All of our recommendations were subsequently adopted by the full committee. Therefore, I want to positively assure the distinguished Senator from Indiana that the Senate Armed Services Committee did not give, as he has stated "blank check approval of that—F–14—weapon system which is found in the bill as it reads today."

As chairman of the Tactical Airpower Subcommittee, I would like to review briefly the compelling reasons that led the Tactical Airpower Subcommittee to the unanimous recommendation that the F–14 program should be fully supported and authorized. I shall be happy to expand or discuss with any Member any particular point after concluding my remarks.

THREAT

Whether any new air superiority fighter is required or not depends on the threat to our national security. If there is no threat, then we can rely on or make do with older less effective weapon systems. If there is a threat, then in good conscience we must recommend those actions necessary to protect our national security. Is there a threat in the tactical air superiority area? I believe unquestionably that the evidence conclusively demonstrates there is a distinct and serious threat. I believe that if we do not pursue both the F–14 and the F–15 air superiority aircraft programs the United States will be inferior to the Soviet Union by 1975. Why is that so? The only aircraft in our inventory today with an acceptable air-to-air combat capability is the F–4. This aircraft has been and is an excellent weapon system. However, it is critically important to recognize that its technology dates back to 1954. In an age of rapidly advancing technological achievements the F–4 could not cope successfully with Soviet aircraft in the mid-1970's.

Today the most likely enemy air superiority aircraft is the Mig–21. Expert testimony has established that the F–4 is considered equal in performance to the Mig–21 at normal fighting altitudes. We then must determine whether the Soviet Union has improved upon the Mig–21. The Soviets since 1954, when the F–4 was designed, have flown 18 new models of modern-type fighter aircraft. Obviously not all of these different models have gone into production or become operational. However, it afforded the Soviets with many modern flying prototypes from which it could select the very best for production.

Seven of the 18 new models were seen for the first time by the free world at the July 1967 Moscow airshow. At this airshow, we first saw the Foxbat, the present holder of the world's speed record. Intelligence sources estimate at least three of the new fighter aircraft seen for the first time then are currently in production or will be shortly.

During the past decade the Soviet Union has introduced at least one new type operational fighter every 2 years. A total of six, with 11 models; namely, five models of the Mig–21 Fishbed; two models of the Fishpot; and one model each of the Fitter, Firebar, Fiddler, and the Flagon.

The Soviet Union has concentrated on tactical aircraft specifically oriented for the air superiority role. In contrast, the United States has developed and relies on the F–4 for the air superiority role.

It is fundamental that the new Soviet aircraft flown in 1967 will be superior to the Mig–21. Further, when they are operational they will be superior to the F–4. A nation with its eyes on the future, and what potential adversaries may do, obviously will not develop and deploy new weapon systems inferior to existing models.

Our informed experts agree the F–4 aircraft, designed on a 1954 technology, will be totally inadequate to cope with the highly sophisticated aircraft of potential enemies in the mid–1970's.

A modern fighter takes several years to develop and produce. This is an inevitable and inescapable fact. Therefore, it will be 1975 before our new air superiority fighters are operational, with the exception of the F–14A which will be operational in early 1973.

It is well recognized that if the air space is controlled, then the battle area and surrounding terrain is controlled. If the air space is not controlled, then other tactical aircraft designed for air-to-ground missions will be relatively ineffective. Even modern aircraft designed for air-to-ground roles require a "permissive" environment, that is, no heavy enemy fighter opposition if they are to be successful. Yet, in the face of this unquestioned fact, the United States for the last few years has concentrated on the development of air-to-ground aircraft for the interdiction and close air support missions.

F–14

Now I would like to discuss the F–14 program and whether it will be able to meet its primary mission requirement—to achieve air superiority. The Navy and its aeronautical experts have stated it will be fully capable for this vital mission. Inasmuch as carriers are deck limited and can carry only a limited number of aircraft, the F–14 must also perform the fleet air defense mission. Otherwise we would have to buy two different types of aircraft—one for the air superiority mission and one for the fleet air defense mission. Many people, including myself, were initially concerned as to whether the F–14 would be unduly compromised in the performance of its air superiority mission by virtue of the added responsibility of performing the fleet air defense mission carrying the Phoenix missile system.

Dr. Foster, and his technical experts in the Department of Defense, also had this concern. Therefore, they requested the National Aeronautics and Space Administration to determine if the performance characteristics established by the Navy were reasonable and capable of attainment. NASA, after reviewing all of the major data and conducting tests on its own, advised Dr. Foster that the multimission performance estimates of the Navy were attainable without any significant degradation of the pure fighter capability of the F–14. The Department of Defense Research and Engineering Office has also concurred with the Navy's estimates. I was reassured by the findings of these aeronautical experts and I do not think anyone, therefore, without proper qualifications should make findings to the contrary.

I feel it is important to understand that an air superiority aircraft is not dependent for its success on any one feature, such as speed. An air superiority aircraft to be successful must be a "balanced" aircraft capable of speed, acceleration, climb, maneuverability, and so forth. This involves consideration of weight, thrust to weight ratios, wing loading, and so forth. The design experts must review all of these requirements and put them in proper balance in order to achieve a true air superiority aircraft.

I would like to say a few words about the Phoenix missile system. This is the main armament for the F–14 in the Fleet Air Defense role. The present program calls for "palletizing" the vast bulk of the equipment associated with the Phoenix missile. This means that when the aircraft is configured

in the air superiority role the Phoenix missile and most of its associated equipment will be removed. I have with me today a model of the F–14 which shows how this will work in practice.

The subcommittee was advised that if the F–14 was designed exclusively for the air superiority role—without any Phoenix weapon system capability—that it would weigh only 600 pounds less than the present F–14 design. Let me make this point very clear. The Navy experts have stated that if they designed an aircraft exclusively for the air superiority role without considering any other mission it would weigh only 600 pound less than the present F–14. The Navy feels, and I agree, that the 600 additional pounds the F–14 will weigh in order to give it the capability of carrying the Phoenix missile system is an insignificant penalty when we consider the great value realized; namely, the ability to perform the Fleet Air Defense mission.

The development of the Phoneix missile system has been a very complicated risk. However, 21 of the planned 26 test launches have been fired and 16 were extremely successful. This is an impressive record when one considers the tremendous advance in the state-of-the-art represented by the Phoenix. For example, Mr. President, the Sidewinder air-to-air missile which has enjoyed a very enviable record over the past few years, had great difficulties early in the R. & D. phase. Nearly all of the first 50 R. & D. firings of the Sidewinder missile were failures. Therefore, I think everyone should understand and appreciate that research and development is an essential phase every major weapon system must go through. Obviously any program has its temporary problems and not all test firings are successful during that period.

COST

The distinguished Senator from Indiana has stated the F–14 program will ultimately cost $25 billion. I have no information to support that figure.

The Navy has contracted with the Grumman Corp. for 469 F–14 aircraft—six R. & D. and 463 production aircraft—subject to the approval of the Congress. The information I have shows the program will cost $6.4 billion. This includes all 3 models, the F–14A, the F–14B and the F–14C. It includes $1.3 billion for R. & D. and $5.1 billion for production. Most importantly, these figures are based on escalated dollars which means that provision has been made for a 4-percent compounded annual increase in cost for inflation from 1970–76.

I previously stated in my speech on the Senate floor on July 10, 1969, that the estimated unit cost per aircraft would be $15 million each. It is exceedingly important for every member to recognize that this unit cost includes spare parts, ground support equipment, and a proper share of all R. & D. expenses. To my knowledge this approach by the Tactical Air Power Subcommittee has not been used previously. In the past we have always talked about "flyaway" costs. This is the cost of an aircraft sitting on the runway ready for takeoff. This cost excludes ground support equipment, training, spare parts and a proper share of R. & D. Obviously, our method gives a higher cost figure. However, I believe our cost basis is more realistic because it includes all associated costs with an aircraft and not merely those costs associated with equipment physically on the aircraft.

The Navy has recently advised me that it uses $13.6 million per aircraft for the F–14A and F–14B programs. It did not include estimated costs for the F–14C because it is so far down the road. The F–14C would ultimately provide for new micro-miniaturized avionics. No funds have been requested or spent on the F–14C to date. However, the $6.4 billion figure referred to previously includes the estimated R. & D. costs of the F–14C of $326 million.

The $13.6 million per aircraft includes $8.5 million flyaway costs, $1.1 million support costs, $2 million for spares, plus $2 million for a prorated share of R. & D.—a total of $13.6 million per aircraft. This is for 469 aircraft. If the Navy were to purchase 716 F–14's—the Navy's present force level requirements—it would cost $12 million each.

Mr. President, I yield myself an additional 5 minutes.

The PRESIDING OFFICER. The Senator from Nevada is recognized for an additional 5 minutes.

Mr. CANNON. Mr. President, obviously when more aircraft are purchased the unit cost is substantially reduced.

For example, Senator HARTKE compares the $15 million costs for the F–14 to the $3 million cost for the F–4. This is comparing apples and oranges. The costs for the F–14 as computed by the Tactical Air Power Subcommittee, includes all costs, that is, flyaway ground support costs, spare parts costs, and a prorated share of research and development. The $3 million figure for the F–4 is "flyaway cost only."

The flyaway costs for the F–14 is $8.5 million in escalated dollars for 463 aircraft. If we used 1970 dollars—without allowing for future estimated inflation—it would be $7.5 million each. The cost of the first 463 F–4 aircraft was $3.6 million each. This was between 1955–63. If we escalate this to 1970 dollars based on actual Bureau of Labor Department statistics the first 463 F–4 aircraft "flyaway" costs would be $3.9 million each. Therefore, to make a fair and accurate comparison we should compare the $7.5 million cost for the F–14 to the $3.9 million flyaway cost of the F–4 using 1970 dollars. Also it is important to realize that the F–14 will use 1969 technology versus the 1954 technology of the F–4.

I want to reemphasize that these costs are in escalated dollars. This allows for a 4-percent cost compounded annually for inflation. If we used 1970 nonescalated dollars, the $13.6 million per aircraft would be $12.4 million per aircraft for 463 aircraft. If we purchased 716 aircraft, the unit cost would drop from $12 million to $10.4 million per aircraft.

I certainly am not attempting to convince any Member of the Senate that the new modern weapon system in this day and age cost a few dollars. We must pay for the drastic inflation encountered in this country since 1964. Unfortunately, we cannot go down to the local dime store and procure complicated weapon systems containing the highest sophistication.

Personally, I have weighed in my own mind the requirement for the air superiority aircraft for the Navy versus the cost to be encountered. It is my conclusion that these costs must be incurred because of the paramount importance of properly providing for our national security.

Mr. President, before I close my remarks I would like to tell the Senators why I feel it is important to proceed with the F–14A, using the TF–30–P412 engine and the Phoenix weapon system developed for the F–111B, rather than waiting for the F–14B which will incorporate the advanced technology engine—ATE. If we canceled the F–14A and waited for the F–14B, it would cost the American taxpayer $340 million additional. Of equal importance is the fact that we would delay the introduction of the F–14 into the fleet more than 2 years—from early 1973 until 1975. No one can predict what national security risks we may encounter between 1973 and 1975. I do not feel we can afford to run such a risk.

TF–30—P–412 ENGINE

I would like to advise the Senate, Mr. President, that the TF–30/P–412 engine for the F–14A is not an "old" engine as stated by my distinguished colleague from Indiana (Mr. HARTKE). This engine is the first afterburning turbofan engine developed in this country. It has the highest thrust, the highest thrust to weight ratio, and the lowest fuel consumption of any fighter engine in the Free World. The P–412 engine is the same as the P–12 engine for the F–111 aircraft after adapting the P–12 inlet for the F–14. Initial deliveries of the P–12 engine were only made last year. Not even in a remote sense can it be stated that the TF–30/P–412 is an "old" engine. Further, the F–14 airframe has been specifically designed for the TF–30 engine and the advanced technology engine. Hence, there is no "mismatch" between the F–14 airframe and its engines.

In conclusion, Mr. President, I would like to briefly mention the source of several documents mentioned by Senator HARTKE that he has requested of the Defense Department. These documents, for the most part, were prepared by personnel in the Office of Systems Analysis in the Department of Defense. I do not know what contribution, if any, these documents will provide. I do not know their contents. However, I do think it is extremely important to recognize the key and influential role in the weapon system decisionmaking process played during the 7-year reign of Secretary McNamara by the Office of Systems Analysis. Not once did this Office to any knowledge recommend the United States undertake the development of a new air superiority fighter system. They were always interested in conducting cost-effectiveness studies. While this is fine and has merit as a general rule, the results of these cost-effectiveness studies relative to tactical aircraft, concentrated on carrying iron bombs over long ranges on air-to-ground missions. They stressed such items as "cost per ton mile." It led to the conclusion that as long as we could carry a large amount of bombs over long ranges that we had tactical aircraft superiority over the Russians. While these type missions are important it resulted in a complete failure to develop a new air superiority fighter.

In addition, Systems Analysis successfully resisted all efforts by the Navy and the Air Force to initiate a new air superiority fighter program. I must say, for my part, that I do not look very sympathetically or understandably on data prepared by this Office who, after a long record of resistance, now propose that they can develop a better air superiority fighter.

Mr. President, I could talk at much greater length about the F–14 program. However, I recognize the very busy schedule presently confronting the Senate. I will be happy now to respond to any questions.

Mr. President, I yield 2 minutes to the Senator from Maine.

Mrs. SMITH of Maine. Mr. President, I thank the able Senator from Nevada (Mr. CANNON), a colleague on the Committee on Armed Services, and wish to express my appreciation for the contribution he has made in this area. He and his subcommittee have done a very effective piece of work in this area throughout the long hearings.

Mr. President, my remarks on amendment No. 164 will be very brief.

The Senate has already undertaken the task of making a comprehensive study of the carrier fleet. It stands to reason that any study on the future of the carrier must include the aircraft which represents its principal weapon.

That study would necessarily require a thorough examination of the five items set forth in the amendment.

Mr. President, this protracted debate which began on July 7 is now drawing to a close. This amendment should be summarily rejected because it represents a duplication of effort that we have already committed ourselves to accomplish.

Mr. CANNON. Mr. President, I yield 4 minutes to the Senator from South Carolina.

Mr. THURMOND. Mr. President, it is my intention to vote against amendment No. 164 which calls for a study of the need and capability of the F–14, the Navy's planned air superiority aircraft.

Early this year the distinguished Senator from Mississippi (Mr. STENNIS) named an ad hoc Tactical Air Power Subcommittee under the chairmanship of the distinguished Senator from Nevada (Mr. CANNON) to conduct just such a study.

Not only was this subcommittee, of which I was a member, charged with the study of the F–14 but they also undertook an investigation and review of 14 other major tactical air weapons systems.

This subcommittee held numerous briefings on the tactical airpower situation. It concluded its work by making a set of recommendations to the full Senate Armed Services Committee. Although these recommendations called for the discontinuance of a number of tactical aircraft programs, the seven members of the committee unanimously supported the F–14 program.

The full committee also conducted its own investigation into the F–14 program as it did on other major weapon systems. This Navy air superiority aircraft designed to meet our naval air power needs in the mid-1970's received the support of the full committee.

Mr. President, only last year the Preparedness Investigating Subcommittee of the Senate Armed Services Committee conducted a thorough study into the status of our tactical airpower programs. This investigation included hearings and the issuance of a report which is available to all Members of this body. One of the key recommendations of this report was the need to press forward with the development of air superiority fighters for both the Navy and the Air Force if we are to protect our men, ships, airbases, cities, and other targets in any future conflict.

As recently as July 10, Mr. CANNON, chairman of the ad hoc committee who made the tactical airpower study, made a lengthy speech here in the Senate in which he detailed the findings of this subcommittee and in which he laid particular stress on the comprehensive study made by this group. At this time he emphasized the great need for the F–14 and the F–15.

Mr. President, it is abundantly clear this entire area as well as the F–14 specifically have already been studied carefully by the Congress. Amendment No. 164 is calling for another study.

The import of this amendment is that the Senate Armed Services Committee has not done its job. The very opposite is true. It has not only done its job, but has done it thoroughly. Furthermore, I am confident the committee, under the able leadership of the distinguished Senator from Mississippi, will continue to study and review the F–14 and other programs as they progress.

We do not need legislation to tell this committee how to do its work. This amendment amounts to a legislative mandate to the Armed Services Committee. Where is this sort of thing to stop? If some in the Senate feel we do not need the F–14 then let us have an amendment to that effect and we can vote it up or down.

The Senate has already attached an amendment to this bill calling for a study of the Navy carrier program and as the principal weapon of the carrier the F–14 would presumably be a part of such a study. Also, it should be noted the Navy Department has conducted 46 studies in the area of what type plane is required for our aircraft carriers.

Mr. President, we are forgetting this is an authorization bill. It has already become a Christmas tree bill with amendments dangling from every branch. It appears now the Armed Services Committee no longer has a membership of 18 but rather a membership of 100. We are witnessing an attack on the committee system.

This amendment will not receive my support on the grounds I have just stated. It is my hope other Members of this body will feel likewise.

The PRESIDING OFFICER. Who yields time?

Mr. HATFIELD. Mr. President, I yield myself 7 minutes.

Mr. President, during the discussion of our tactical airpower requirements it has frequently been asserted that the Soviets have developed 18 new models of aircraft since 1955. Not all of these models, however, have been put into production and become operational. Nevertheless, it is claimed that in the past decade the Soviets have introduced five new operational fighter aircraft.

Further, it is asserted that by contrast, the United States is still relying on the F–4, a plane designed in 1955 which became operational in 1961, as our best and only air superiority fighter. Thus, the need for a new air superiority aircraft has been strongly urged upon Congress.

Those who have raised questions and criticisms of the proposed defense authorization bill have never, to my knowledge, disputed the need for a new air superiority fighter. There may be significant differences of opinion regarding the strength and capability of our present tactical airpower in relation to that of the Soviet Union. Also, there may not be complete agreement over the urgency of this need. But, fundamentally, no one has proposed that we should abandon all plans to develop any new air superiority fighter for the future. I trust it is perfectly clear that this is absolutely not the intention or motivation of the amendment being offered by the Senator from Indiana (Mr. HARTKE) and myself.

This amendment focuses particular attention on the F–14 aircraft. It questions whether the variety of missions the F–14 will be designed to fulfill are necessary, feasible, and can all be accomplished by one aircraft. Missions of this plane include defense of the carrier fleet against attack from the air, air superiority, and the capability to deliver certain bombs and missiles on ground targets.

The amendment is offered because of doubts we hold concerning the basic requirement of an aircraft for the fleet air defense mission and the ability of the F–14/Phoenix system to carry out that role.

The Phoenix missile system is being designed for the F–14's fleet air defense role. This highly complex missile is being developed to destroy sophisticated attacking enemy aircraft at long distances. This seems to imply, however, an attempt to provide a defense of our carriers in the event of a major conventional war with the Soviet Union. This raises certain questions in my mind. First, what is the probability of a conventional war with the Soviet Union that would not escalate into a nuclear war? Second, if there should be such a conventional exchange, what would be the role of our carriers? Would carrier-based airpower be necessary or useful to attack targets within the Soviet Union? If not, what role would there be for carrier-based tactical airpower in such a contingency? Finally, given this circumstance, would not the carriers be highly vulnerable to various submarine and surface launched missile attacks?

Thus, I ask whether it is realistic and necessary to provide for the highly sophisticated fleet defense that is the intended function of the F–14's Phoenix missile system. The question is crucial to the development of the F–14. The capability to carry the Phoenix is, in my understanding, the primary reason for the potentially massive expense of the F–14 program. Further, it is the Phoenix requirement that has raised strong doubts about the F–14's capabilities as a true air superiority fighter, as the Senator from Indiana (Mr. HARTKE) has pointed out. I am aware the Navy strongly denied that the air superiority mission of the F–14 is compromised by the fleet air defense requirement. But it seems evident that there is strong, authoritative opinion to the contrary which leaves this question unresolved.

The Phoenix missile will be extremely costly. Original estimates put the price at $219,000 per missile. Now, I am told that reliable estimates figure the cost at $400,000 per missile. Each F–14 will be able to carry one load of six Phoenix missiles. Thus, one load of Phoenix missiles for one F–14 would cost $2.4 million. I have not been able to discover precisely how many Phoenix missiles the Navy intends to buy. But this should indicate the tremendous expense of just this missile system, in addition to the cost of the aircraft.

The PRESIDING OFFICER (Mr. SAXBE in the chair). The time of the Senator has expired.

Mr. HATFIELD. Mr. President, I yield myself 5 minutes.

The PRESIDING OFFICER. The Senator is recognized for 5 minutes.

Mr. HATFIELD. Mr. President, it is estimated that the total systems cost of the F–14, including the extensive expense of operation and maintenance over a 10-year period, could be $25 billion. Because the F–14 would be one of the most expensive weapons systems ever procured by our Defense Department, I believe we must be absolutely certain about the requirement for an aircraft with the multimission capability of the F–14 and the capacity of this proposed aircraft to effectively perform all these missions.

At present, it seems as though doubts and questions remain which have not been fully answered. Thus, our amendment proposes that these issues be carefully studied by the Congress between now and April 30, 1970, and that no decision regarding the future procurement of F–14's be made until such a study can be carefully evaluated. Our amendment would not affect the 12 F–14's authorized in the current bill and other long lead-time items. It would require that the most careful scrutiny be given to this matter before we embark on the massive, costly procurement of an aircraft that might not be a wise or necessary component of our Nation's defense. There are many crucial questions and issues which such study should focus upon. Our amendment suggests a few specific considerations.

First, for instance, we believe the congressional study should examine in detail the character of the airborne threat to our carrier task forces. In House Appropriations Committee hearings in 1968, Chairman MAHON, in reference to the Soviet bomber threat, said:

"The bomber threat against the fleet, as you know, has been predicted by Navy officials for some time. It has, of course, not developed to date."

Has the threat increased since Congressman MAHON made this comment?

Second, just what are the capabilities of the Soviet aircraft which threaten our fleet?

Third, it is also important to examine the cost effectiveness of the F–14/Phoenix system. We should analyze in detail its ability to protect the carrier fleet against the threat which is likely to exist in the relevant time period.

We should look at the threat from aircraft, from submarines, from ships, and from shore-based missiles. We should then determine which of these can be countered and at what cost. If it turns out that at great expense we can cope with the airborne threat, but that no matter how much we spend we would not be able to deflect significantly other types of attack, then it would seem not useful to spend great sums to counter the bomber threats.

Fourth, the study should look into the question of how much performance in any specific mission requirement is comprised in order to provide the F–14 with a multimission

capability. The Senator from Indiana (Mr. HARTKE) and I have already commented on this issue.

Finally, I would hope that such study would focus attention on the cost-effectiveness and feasibility of alternative programs to the present F–14/Phoenix plans. The Senator from Indiana, for instance, mentioned reports of proposals for the development of a fighter aircraft not encumbered with the Phoenix missile system. If such an aircraft could actually be built and operated for as much as $15 billion less than the F–14, as the Senator from Indiana has maintained, then all the facts and considerations concerning such an alternative should be openly studied by the Congress before an irreversible commitment is made to the F–14/Phoenix system.

In summary, our amendment requests only that this highly complex matter be carefully considered before the next defense authorization bill. This would make it possible for all the Members of Congress to increase their knowledge and perfect their judgment on such a costly and crucial issue. I trust that the very distinguished chairman of the Armed Services Committee and the committee members will understand the cooperative spirit in which this amendment is offered. We want to increase our understanding of these complex matters in order to better exercise our responsibilities as Members of Congress. It is for this purpose that we offer our amendment and urge its adoption.

Mr. HARTKE. Mr. President, I yield myself 1 minute. I send to the desk a modification of the amendment.

The PRESIDING OFFICER. The Senator has a right to modify the amendment.

Does the Senator wish the modification to be stated?

Mr. HARTKE. Mr. President, I ask that the modification be read.

The assistant legislative clerk read as follows:

"On page 1 of amendment No. 164, beginning with line 1, strike out all down through line 5 on page 3, and insert in lieu thereof the following:

" 'SEC. 403. Prior to April 30, 1970, the Congress shall complete a comprehensive study and investigation of the requirements to be fulfilled by future carrier borne aircraft and of the projected costs of the F–14 aircraft and the capabilities of such aircraft to meet these requirements in the most effective and efficient manner. The results of this comprehensive study and investigation shall be considered prior to any authorization or appropriation for the production or procurement of any F–14 aircraft. This limitation shall not apply in the case of funds authorized by this Act for such aircraft.' "

Mr. HARTKE. Mr. President, I ask for the yeas and nays on the amendment.

The yeas and nays were ordered.

Mr. HARTKE. Does the Senator from Mississippi wish to speak at this time?

Mr. STENNIS. The Senator may proceed.

Mr. HARTKE. I was going to ask a series of questions of the Senator from Nevada.

Mr. STENNIS. If the Senator from Indiana would permit me to say a few words at this point on behalf of the committee, I would appreciate it.

Mr. HARTKE. I am happy to yield to the Senator from Mississippi.

Mr. STENNIS. Then, the Senator could interrogate the Senator from Nevada.

The PRESIDING OFFICER. The Senator from Mississippi is recognized.

Mr. STENNIS. Mr. President, with reference to the amendment which has been proposed, I know the good faith of the authors of these amendments and I accept at face value everything they say about their intentions.

I do wish to bring out what the committee has done. In this case I believe the authors reached the wrong conclusion. This year I specifically requested the Senator from Nevada to explore the F–14 program in detail and he performed his job with the thoroughness that is characteristic of him. This was done in a fine way and we had the benefit of other talent on the committee that is well versed and has long experience in understanding the problems of a plane, the problems connected with its mission, and making a valid judgment. We had other advice and counsel, of course but in the committee we did have men of experience. They are here to be cross-examined.

The fact of the matter is that the subcommittee of the Senator from Nevada spent the greatest portion of its time on the F–14 and F–15 aircraft programs because of their cost and importance. It reported in considerable detail to the full Committee on Armed Services on the results of its inquiry and study into the F–14 program and the full committee itself also explored this program in detail when the appropriate witnesses appeared and testified.

These were not casual matters. It just is not true when it is said they just take these things as a matter of course and accept what is said by some general or admiral about it. Those accusations are not true. I do not say they are corruptly made by they do not represent the facts that as they occurred in the markup of the bill, particularly with respect to these programs that are in the making and projecting into the future because we know how important it is for the need to be supplied and we know how important it is in the workability—I will use that term—and also the cost.

Therefore, I am most concerned by the fact that this amendment suggests by implication that no one up to the present time has reviewed the program and, more specifically, as Senator HARTKE suggested in an earlier speech, that the committee gave blank-check approval to the F–14 program. Such is definitely not the case.

The Tactical Air Power Subcommittee unanimously recommended after their thorough and intensive review of the program that the funds requested be authorized. The full committee, after conducting its own review, agreed with this recommendation.

Furthermore, Mr. President, the Preparedness Investigating Subcommittee, of which I am chairman, spent several months during 1968 conducting a most thorough and exhaustive review of all of our tactical air programs. Needless to say, due to the high importance of the F–14 program, it received detailed consideration. Extensive hearings were held and the Preparedness Investigating Subcommittee issued a unanimous report on October 4, 1968. In that report we recommended that the Air Force and the Navy's air superiority fighter programs proceed with maximum effort in light of the current and foreseeable Soviet threat.

By way of background here, the Navy's version of the TFX had been hanging on and hanging on and it was not working out. It was too heavy. It was still in the budget though, when the Preparedness Investigating Subcommittee reported on it. It was still in the budget in March of 1968 when we last considered it and the first time consideration was given in committee as to whether to build the F–14. We took out the last remnants of the Navy version of the TFX as being proven to be totally inadequate and put in, instead, the case for the F–14. I have already outlined what we did this year.

Next year, the matter will be considered by the committee, and not in any casual way, but right down to the very heart of the matter, weighing it again—if it is recommended and I feel sure it will be—in the bill, and we will go into it from its development at that stage.

Frankly, as a practical matter, I believe that we are capable of coming up with a judgment. We will do that. I do not like to put any date tag on this thing. It has been grinding out now for 15 years, trying to get a proper fighter plane for the Navy. We went along with one that was not adequate. Now this one has started going, after 15 years of effort.

Now we say by next March 31 we have got to come up here with something in the way of a survey. I do not like the idea at all, particularly with this long bill of particulars and guidelines written by someone in good faith, perhaps—I am sure it was in good faith—but I do not believe they had any more knowledge, perhaps not as much, as the men who sit on the committee and pass on these matters. I am not including myself in that.

So I think we are about at the end of the road in considering this bill. I think as a measure of the history of this legislation and the headway we are making, if anything should be discovered down the line as to the run with engine A or the run with engine B, why, of course, we will take advantage of it.

Mr. HATFIELD. Mr. President, will the Senator from Mississippi yield for a question?

Mr. STENNIS. I yield.

Mr. HATFIELD. I appreciate the comments the chairman of the Armed Services Committee has made relating to the work of the committee. I want again to go on record, as I have in the past, my support for the committee's work. The chairman has also referred to the ad hoc committee that was chaired by the distinguished Senator from Nevada (Mr. CANNON). I am quoting from the Cannon report in the RECORD of July 10, 1969, and I would like to ask the Senator to respond to this question as it relates to the F–14.

On page 19056, I read as follows:

"The committee is compelled to point out that for the last few years the United States has concentrated on the development of "multipurposes" missions, including air-to-air combat and air-to-ground missions. The requirements for an aircraft to be capable of performing "multipurposes" missions unquestionably compromises an aircraft in the performance of its primary mission, irrespective of the nature of its primary mission. It is the committee's judgment that we now concentrate on the development of the fighter aircraft specially configured and confined to the "air superiority" role. We have long neglected undertaking a new program in this area, relying exclusively on the capability of the F–4."

My question to the Senator is: Is not the F–14 designed to carry the Phoenix missile which makes it a multiple-mission type of aircraft?

Mr. STENNIS. Yes; that is correct. It makes it a multiple-mission aircraft for an aircraft carrier, as the Senator from Mississippi understands it. They must have some multiple-mission planes whereas the Air Force, operating from the ground with longer runways, can concentrate on one thing, and that is speed, climbing power—a single mission. But we have a mixed type of plane on an aircraft carrier and we have to have some multiple-purpose planes.

I really think that the Senator from Nevada (Mr. CANNON) is the gentleman that should answer that question. I gave a layman's point of view. The Senator from Nevada really knows that subject.

Mr. CANNON. I would be happy to respond to that question. It is a good one. The Navy has a dual requirement for this type of aircraft. One is for the defense of the fleet, and two, the aircraft superiority role itself. So what they have tried to do is to have one aircraft perform both missions since they do not have the luxury of being able to have two aircraft, because they do not have the space for them on a carrier. As a result, they have come up with a design in which they have optimized this development.

I show the Senator a model of the proposed F–14 now on my desk, if the Senator would care to look at it. It should be noted that the Phoenix weapons system which is

to be used in the air defense role—is so optimized that the whole weapon systems package can be removed. That is everything including the guidance except the part which is in the pilot's cockpit—can be taken off, when it is used in the air superiority role; and it can be reinstalled if the aircraft is to be used in an air defense role. On this role, however, it is configured for both. It has as can be seen on this model some of the Phoenixes and also Sparrows which permits it to go into a dual role capability and be able to perform in either environment, as required.

I stated in my speech that because of the design features that have been built into this proposed design, there is only a difference of 600 pounds in total weight over and above what the airplane would weigh if it were designed solely for an aircraft superiority role. So the Navy is only paying a 600-pound penalty to give them an aircraft having a dual role. The aircraft, true, as the Senator from Indiana indicated, might probably be outperformed by the F–15. But the F–15 cannot land on an aircraft carrier. This requires a much heavier structure for the airplane, and the landing gear, too, must take the shock of being catapulted off and must again take the shock of coming in for an arrested landing.

So if you could transport a runway around with the carrier, the type that an F–15 needs, then it is true you would be able to reduce the weight and get perhaps a higher performing aircraft, because the oversimplification is that it depends on the thrust-to-weight ratio for the type of performance you are going to get.

Mr. HATFIELD. Will the Senator yield for a further question?

Mr. CANNON. I am happy to yield.

Mr. HATFIELD. I appreciate the analysis and explanation as given of the F–14 model on the desk. I would like to have the opportunity of looking at it in more detail later. But I refer again to this question, because it seems to me the Senator from Nevada again reiterated what he said in his report, that it is a multimission plane, because he uses the word "compromises":

"The requirements for an aircraft to be capable of performing "multipurpose" missions unquestionably compromises an aircraft in the performance of its primary mission, irrespective of the nature of its primary mission."

Irrespective of its primary mission, it compromises. What I want to know is where we compromise in this aircraft. Where do we make the compromise, which means less than full effectiveness or efficiency?

Mr. CANNON. The compromise is the 600-pound difference in weight. So we have that feature on this aircraft. We have a 600-pound heavier aircraft so this airplane can perform in a defense role as distinguished from an aircraft that would have only one mission, that being air superiority. But the Navy cannot afford the luxury of two planes for that purpose.

We got into this problem with the old TFX or the F–111. The F–111 was described as a fighter-bomber. It should never have had the tag "fighter" put on it, because it never was. It is an attack aircraft, it is true. It can go in low, has speed so it can get away; but if we are talking about air superiority, it cannot compete with a lighter aircraft, at altitudes, that weigh much less than the F–111 and is perhaps as fast or nearly equally as fast, because it is not built for that air superiority role. Yet it was described as a fighter-bomber in the sense that it can protect itself, which it can do by either firing at another aircraft or going faster than any other aircraft on the deck, so that the pursuing aircraft would pull its wings off. In that sense it can defend itself, go in low, at great distances, avoid radar surveillance, make an attack, and get back.

Mr. HATFIELD. Mr. President, will the Senator yield for a further question?

Mr. CANNON. I yield.

Mr. HATFIELD. Do I understand that the full Committee on Armed Services changed the conclusion of the ad hoc committee of which the Senator from Nevada was chairman, because in the statement of the Senator from Nevada as the finding of the ad hoc committee—and I quote again—it is stated:

"It is the committee's judgment that we now concentrate on the development of the fighter aircraft specially configured and confined to the air superiority role."

If I understand that correctly, the Senator's ad hoc committee said that we should confine ourselves to the air superiority, single mission role for a fighter; whereas, as I understand the statement now made, the Senator wants the dual role for the F–14. Is that a correct understanding?

Mr. CANNON. It is not exactly correct as the Senator places it. We, and the Navy feel, the studies indicate, that the F–14 can perform in an air superiority role as required by the Navy. I have already touched on the penalty spoken of by the committee. That is the reason for the design configuration which permits the whole package of the Phoenix, as I said before, to come right off if it is going to perform in an air superiority role. We end up with an airplane that is only 600 pounds heavier, which is not very much in an airplane of this size and weight, than if the airplane had been designed solely for the air superiority role.

Mr. HARTKE. Mr. President, will the Senator yield?

Mr. CANNON. I do not have the floor.

Mr. STENNIS. Mr. President, I ask unanimous consent that I may yield so the Senator may ask questions. I may say to the Senator that I have only two or three more sentences, and then I will yield the floor.

Mr. HARTKE. I withhold.

Mr. STENNIS. Mr. President, I yield myself such time as I may need.

I recognize, Mr. President, that generally studies have a worthwhile purpose. To oppose a recommendation for a study is almost like being against "motherhood." However, we know from our past experience that Secretary McNamara conducted endless studies. Many systems were literally studied to death. In other cases, the results were that invaluable time was lost and when finally we decided to buy the weapon system the delay resulted in our paying higher cost.

The Department of the Navy has studied the F–14 in great detail over the past 2 years. In November 1967, the Chief of Naval Operations directed the formation of a Navy fighter study. This group spent 30 man-years studying all areas of technical, tactical, and cost estimates. It concluded that the F–14 was the fighter aircraft that the Navy requires.

Subsequently, the Defense Department of Research and Engineering Office and the Systems Analysis Office of the Secretary of Defense commenced their own studies.

With the submission of five proposals from leading aerospace companies, the Navy spent 80 man-months in an intensive technical evaluation.

In addition, over 15,000 hours of wind tunnel time has been performed proving and refining the F–14 design. Finished engineering drawings are now being completed at the rate of 500 per month.

To eliminate any doubts as to the capability of this aircraft, NASA was requested to make an independent assessment of the performance characteristic of the F–14. The results of their assessment was provided by Dr. Foster on August 7, 1969. NASA conclusions were that the Navy's performance estimates were attainable and the multimission capability of the F–14 could be performed without any significant degradation in the performance of its primary mission; namely, air-to-air combat.

In conclusion, Mr. President, I submit that the Defense Department—including the Navy—and most specifically the Senate Armed Services Committee—including the invaluable contribution made by its Tactical Airpower Subcommittee—has studied this matter thoroughly and in depth. It will do so again next year when the authorization bill is considered. The proposed amendment, therefore, would serve no useful purpose. The Armed Services Committee will discharge its responsibilities to the best of its ability. No legislative mandate is necessary to require us to review the F–14 program and other major weapon systems programs contained in the budget. We do not require the Congress to legislate in order to tell us how to do our job in the detail which this amendment proposes. We recognize our job and our responsibility and intend to face up to them in all respects.

Mr. President, I conclude with the statement that we, of course, will fully look over all the phases, particularly the new phases, of the F–14 before we make any recommendation not only on the F–14 but others, too. We mean that, and we will carry it out. But there have been about enough timetables set around here. The committee has to have some kind of latitude about how to function and when it will report.

I submit this is one of the most thoroughly and carefully considered matters of this kind, and after 15 years of effort to try to get a new and better Navy plane to meet its role, I believe we had better get going.

Mr. HATFIELD. Mr. President, will the Senator yield for a question?

Mr. STENNIS. Yes, I yield.

Mr. HATFIELD. I believe we have agreed to have a study of this aircraft carrier.

Mr. STENNIS. Yes.

Mr. HATFIELD. And every Senator supported that proposal. Does the Senator not believe it is just as important to have a study not only of the aircraft carrier and its capability, but what we place on the aircraft carrier?

Mr. STENNIS. Oh, yes. They are both important and will be considered together, to a degree. That is correct. That is a good question.

This is a new plane. I have already outlined what we have done. The promises about the aircraft carrier related to the carrier fleet. There are 15 of them, as the Senator knows, in operation. There is a question as to whether some should be taken out, and so forth. We are going to review all parts of it.

Mr. HATFIELD. Will the Senator yield further.

Mr. STENNIS. Yes, I yield.

Mr. HATFIELD. If it is accepted generally, then, that we are going to study the purpose and mission of the aircraft carrier, and that it is logical to study that which we place on the carrier, the amendment offered by my colleague from the State of Indiana and myself—with the proposed change in that amendment—then only, really, would provide emphasis to the group to study not only the carrier but also the kind of plane that is placed on the carrier. That is actually all the amendment now proposes to do.

As I understand, the distinguished chairman of the Committee on Armed Services felt this would not be inconsistent with the study of the carrier; is that correct?

Mr. STENNIS. Well, there is a relationship. The study of the carrier question, I think, is broader and more comprehensive. I wrote the word "comprehensive" into that resolution in its final form the other day, because I wanted to show we were willing to cover it all. But I think this is a single-shot proposition now, related somewhat to the carrier question, but I think it stands on its own feet, frankly.

I believe the Senate is going to give us discretion in passing on these matters.

Mr. President, I yield the floor.

Mr. HATFIELD. Mr. President, I should like to make just one or two further brief comments on this amendment.

I believe it is very clear that the amendment proposes to do exactly that which we have outlined in the colloquy with the distinguished Senator from Mississippi, chairman of the Committee on Armed Services. That is simply to make more pertinent that to which we have already committed ourselves in the study of the aircraft carrier and the fleet generally. This is the purpose of the carrier study; and if you are talking about an aircraft carrier, you have to consider what is placed on it; namely, the airplanes.

I do not think our amendment is incompatible at all with that to which the Senate has already committed itself. I cannot understand how a Senator could vote for the study of an aircraft carrier without being willing to study that which is to be placed on the carrier.

I should like to comment further on this matter of the multipurpose mission versus the single mission. I again refer to that report made by the distinguished Senator from Nevada (Mr. CANNON), and I believe that I can understand the English language, when it says in the report that there is some question—in fact there is very definite question—as to an aircraft that is required to perform a multipurpose mission.

That was pointed out in the report. Second, it was pointed out that the committee's judgment was that they should concentrate on the development of the fighter aircraft specifically configured and—I underline the following words—confined to the air superiority role.

I submit that, in studying the F–14–Phoenix system, this is not a single mission but a multimission aircraft, and that we are compromising on this aircraft I feel, therefore, that it should be studied further, and I should like to offer one last quotation from a very distinguished man, Gen. G. P. Disoway, formerly head of the U.S. Tactical Air Command. This is not a Senator; this is a general of the Air Force speaking. He said:

"If you could build an airplane which would do everything, it would be wonderful. You just cannot do it in this modern day."

I think that the general has really capsuled the whole thought behind this amendment that the Senator from Indiana and I have prepared and referred to this body. I hope that the Senate will consider the fact that this amendment merely asks that we continue the study on this aircraft along with that on the aircraft carrier, and not commit ourselves to the expenditure of billions of dollars with such a questionable aircraft ir mind.

Mr. HARTKE. Mr. President, I should like to state, first, that no one questions the diligence, hard work, and devotion of the chairman of the committee and the chairman of the subcommittee. I think it has been remarkable. No one questions that they have been trying to provide the best weapons necessary for our defense.

The fact still remains, however, the experience of the ill-fated experiment with the TFX has put us in a position where we have not had a Navy fighter aircraft in 15 years.

The circumstances which were to blame for that situation should not be used to justify the same errors over again. This is what the Senator from Oregon and I are trying to bring to the attention of the Senate.

There are certain documents which really challenge the basic assumptions which have been made as a result of the hearings, and the lack of any opposition to the presentation made on behalf of the F–14. I should like to point out that it is very easy for us to stand here and say that this multipurpose aircraft can drop part of its equipment, and therefore lighten its load. But you cannot drop the man out. It is a two-seated operation; you are not going to drop out a man, and you are not going to drop out the avionics equipment which has to go with this multipurpose development.

The Senator from Nevada has admitted on this floor that as far as this plane is concerned, it is not a superior tactical aircraft. Its ability as a dogfighter have been compromised by its assigned function of fleet defense and consequential requirement of having the Phoenix.

Mr. President, the Phoenix is the very heart of what we are asking to be studied in depth. The Phoenix has not undergone thorough and proper testing. There have been no shots against any supersonic targets, maneuvering targets, or clustered targets. There have been no tests of its performance against electronic countermeasures. Until such tests are complete, we are in the position of going ahead with another airplane, assuming that the Phoenix is going to work, and admitting before we start that we are going to have an airplane which will not be a superior dogfighter.

So I ask the Senator from Nevada, not denying the threat of superiority from the Russians, and agreeing that so far as the F–4 is concerned, it is not modern, and that the Russians have flown 18 prototype models—and we, incidently, should be flying prototypes ourselves—how is it going to do any damage to agree to an amendment which says we should study the F–14 carefully and go into it thoroughly?

The Senator from Nevada even admits he has not seen the documents and does not know what they contain. I cannot understand why the Senator does not want to look at those documents, and report back to Congress whether they disclose any valid objections.

Mr. CANNON. I would have to ask the Senator a question. Has he seen those documents? I do not know; perhaps they would contain something. Has the Senator from Indiana seen the documents?

Mr. HARTKE. I have outlined them in detail for the Senate. Why cannot the committee ask for them? I have asked for them generally, and have outlined them in detail.

What is there to hide? We learned, during the debate on the ABM, that secrecy about these matters is frequently unjustified, that the secrecy is more dangerous to our national security than revealing the classified material and that secrecy is used to protect questionable decisions and assumptions.

Mr. CANNON. I would simply have to say that I suppose there are a lot of in-house documents over in the Department of Defense that might be interesting if one had time to read them all. I have not seen these documents; I do not know what they say. I do not know what pertinence they might have to this matter. But I have already inserted in the RECORD a list of 48 studies that have been completed on this problem; and furthermore, the National Aeronautics and Space Administration is the organization charged with research and development in the field of aviation, independent from military aviation.

Navy performance estimates on the F–14A and the F–14B have recently been established by an independent NASA assessment, made at the request of Dr. John F. Foster, Jr., Director of Defense Research and Engineering. Here they have gone completely away from the military; they go to an independent and say, "Study this. Will it do this and this? Can we do that?"

The answer was favorable. NASA reviewed all the major data, conducted tests on its own, and came back and told Dr. Foster that the multimission performance estimates of the Navy were attainable.

The Senator has already referred to my comments in the report this year. Actually, what I was reading from, or at least what we said, was from our report of the Preparedness Subcommittee last year. We said, "Go ahead and get to it now, and develop an aircraft that can have a single purpose mission."

Now NASA and the Navy have both said that this does not detract from the primary mission of the aircraft, because, as I stated earlier, you end up with only 600 pounds more weight than if the airplane had been designed solely for the air superiority role.

The Senator from Indiana referred to the F–14, and said it will not perform with the F–15.

I ask the Senator, can he figure out some way to transport a 10,000-pound plane on an 8,500-foot runway, so that it can perform with the fleet? If the Senator can, we would be better off to put the F–15 on that runway, and operate it out in the middle of the ocean. Any time an aircraft operates off a carrier, it has to have more thrust than if it operates on the ground. If we go back to the weight-to-thrust ratio, we do have a good aircraft here.

We have an aircraft that has been studied to death. If the Senator is trying to kill the aircraft, he should say so. Let us then give it another study and bury it. If the Senator is opposed to it basically, he should say so. If he is not, let us review it from the studies that have been made.

The Senator said earlier that we did not consider any witnesses who were opposed to the aircraft. Would the Senator give me the name of one or two witnesses who are opposed to it?

Mr. HARTKE. Mr. President, I pointed out that in Coronado, Calif., Navy fighters participated in a symposium of the F–14 and they were extremely critical. They are the ones who would be required to fly the plane. The report of their comments has not been presented. Their lives are on the line. They will operate the planes.

Why is the report of that symposium withheld? A number of witnesses could be provided.

Mr. CANNON. Mr. President, does the Senator have the name of one witness who is opposed to the aircraft? I would be interested in having the name.

Mr. HARTKE. We would be glad to submit that to the Senator.

I am not being critical of the Senator or indulging in frustration over the TFX. I just want a good plane. I am not asking that any money be taken out of the bill. The bill will be passed. There is not any question of that.

However, why should we go ahead and commit ourselves blindly for a number of years on the assumption that we will be successful when we have the history of the ill-fated F–111 project in which there was so much trouble. Everything that was said about that project is basically the same thing that the Senator from Nevada is saying today.

I am sure the Senator from Nevada is acquainted with the F–XX or the UF–XX in the Navy version. The Senator knows this is an alternative. It is cheaper. And it is much more maneuverable. It is considered to be a superior plane; is it not? Is it not true that it is considered to be superior? Is it not an alternative?

Mr. CANNON. It is an alternative. However, it is not a good one. It was considered and rejected for a lot of reasons.

Mr. HARTKE. Was it rejected for any reason other than the fact that it is not a multipurpose plane? It is lighter. It is more maneuverable. However, it is a single purpose plane.

Mr. CANNON. I should like to answer that statement. I think it was rejected basically because it would not fly. The people who examined it in detail said that the proposal was not a feasible proposal and that the airplane would not do what the paper study showed that it could do.

Mr. HARTKE. The paper study would be

worth as much as it was in the case of the TFX. The paper study in that case showed that plane would also work. However, ultimately, after long-term experiments and anxiety and increased frustration, we find ourselves going now into another paper airplane that will be produced before we have even one prototype. We will spend $3 billion before we know whether it meets the specifications, let alone know whether it will be a good fighter.

The Russians have done what I have suggested. They have flown prototype planes and found how they performed. Then they have gone on with the production of the plane.

As the Senator states, the F–14 will be designed for 1975 to 1985 and my amendment would attempt to give some guidance for the future. We have a very simple situation. Unless something is hidden beyond the seven documents that have not been presented, I cannot see why the committee itself would not be in agreement that this should be done.

I think it would be a tribute to the committee and to Congress to say for once, "We are going to take this upon ourselves and have a study made before we go ahead with the money in 1970." We would not bother anything in the bill. I cannot see why that cannot be done.

Mr. CANNON. Mr. President, if the Senator from Indiana does not realize that what I have been saying all afternoon is that we have studied the matter, if he does not realize that I have had 48 studies printed in the RECORD today, if he does not realize that the matter has been studied thoroughly, if he does not realize that I said Dr. Foster requested NASA to make a study and that they did make a study and reported back that it was feasible, and if the Senator does not realize that that constitutes a study, then I am sorry the Senator does not understand me. I think there is no point in going further. I think the Senator has covered it quite thoroughly.

The PRESIDING OFFICER. The time of the Senator has expired. Who yields time?

Mr. CANNON. I yield myself 2 additional minutes.

The PRESIDING OFFICER. The Senator from Nevada is recognized for 2 additional minutes.

Mr. CANNON. Mr. President, if the Senator is opposed to the matter, let him vote against it if he does not prefer that we go ahead and try to have a new, modern fighter that will do the required job within the time frame discussed.

We think the thing is needed. The Preparedness Subcommittee said more than a year ago that it was needed. We held the Navy's feet to the fire and held up the Navy version of the F–111 in the committee and said, "Go ahead and develop an airplane that will do the job."

This is what they had attempted to do. The Senator from Indiana is trying now to refer to another time.

Mr. President, if no other Senator wishes to talk on the matter, I intend to make a motion to table.

The PRESIDING OFFICER. Who yields time?

Mr. STENNIS. Mr. President, other Senators wish to speak.

Mr. DOMINICK. Mr. President, will the Senator yield me 5 minutes.

Mr. STENNIS. Mr. President, we have only 5 minutes remaining. I yield 3 minutes to the Senator from Colorado.

The PRESIDING OFFICER. The Senator from Colorado is recognized for 3 minutes.

Mr. DOMINICK. Mr. President, I have listened to the debate with great interest. I was particularly intrigued with the speech given by the Senator from Nevada (Mr. CANNON), which, I think, outlines very clearly why we need this development work and why we need to move forward now.

Over and over again on the floor of the Senate I have said to the Senator from Indiana and to other Senators that we have spent more time and more money in getting less products in the last 8 years, under Secretary McNamara than we ever did before in the history of the country.

People say that we saved a lot of money. It cost us a lot of money and we have nothing to show for it. The cost systems analysis, or whatever the department is called, has stopped us from going forward time and time again.

Unless we move forward now, we will find ourselves in a position of being unprepared in the middle seventies. This is the problem that we must face up to.

Mr. HARTKE. Mr. President, will the Senator yield?

Mr. DOMINICK. I yield.

Mr. HARTKE. Mr. President, I do not want to fight about McNamara. I am not talking about him. I do not want to stop the bill, I am not talking about that. I do not want to hold up anything. I want Congress to study the matter.

What objection could there be from the Senator to going ahead and checking into some of the matters I discussed on the floor of the Senate? What would be the delay? I am not advocating delay.

Mr. DOMINICK. Mr. President, the Senator from Nevada has already shown the work he has done in the subcommittee. He has shown the studies that have been done by other outside agencies on this particular fighter system. He has shown the problems we face vis-a-vis technical superiority over the Soviet Union. He has shown the problems we will face in the 1970's. We think that the United States will have the best airplane in the world, but we will then realize we are flying a technical airplane designed and built in 1954.

This is why we think we must go ahead with the F–14 now. The F–111B simply was not good enough. The committee found that out and said, "We will not put this into effect. We will get something that will operate and be more effective."

I have here a document from Admiral Moorer, Chief of Naval Operations, dated September 6, 1969, making the following three points:

"The present complement of Navy fighters is rapidly becoming obsolete. The F–8 became operational eleven years ago followed two years later by the F–14 (nine years ago). During this same period the Soviets have introduced eight new fighter aircraft.

"The Soviet Union currently has four fighter aircraft with performances exceeding those of the F–4 and future improvements must be expected.

"The Soviets have developed other weapon systems clearly designed to attack naval forces. Badger and Blinder bombers can launch any of five different guided air-to-surface missiles at ranges up to 150 miles. They have surface-to-surface guided missiles deployed on submarines and ships.

"2. The problem is clear and so is the solution. We must have a new fighter superior in air combat to present and postulated Soviet fighters, for close-in visual encounters and for stand-off all-weather conditions. In addition, the new fighter must be able to defeat the enemy air threats to naval forces: bombers and missiles. The threat is serious *now*. It will become more serious in the future.

"3. We are already very late with a new fighter program to counter superior Soviet capabilities. The F–14/Phoenix system will meet our fighter needs through the 1970's and into the 1980's. Delay in the present funding profile will seriously delay achieving the required high capability as well as raise program costs markedly."

The PRESIDING OFFICER. The time of the Senator has expired.

Mr. DOMINICK. Mr. President, will the Senator yield me an additional minute?

Mr. STENNIS. Mr. President, the Senator from Washington has been promised 3 minutes. That is all the time I have remaining.

Mr. DOMINICK. Mr. President, will the Senator from Indiana yield me 1 minute?

Mr. HARTKE. I yield 1 minute to the Senator from Colorado.

Mr. DOMINICK. I thank the Senator from Indiana.

Mr. President, it seems to me only commonsense that we continue with this program and that the committee be given continuing surveillance, as it has within its jurisdiction anyway, and that we continue the fine work which has been done by the Senator from Mississippi and the Senator from Nevada.

The PRESIDING OFFICER. Who yields time? Time is running. Is the debate concluded?

Mr. HARTKE. Mr. President, unless the Senator from Mississippi wants additional time, I am prepared to yield back the remainder of my time.

Mr. STENNIS. I had promised the Senator from Washington that I would save him 3 minutes. I yield myself another half minute to say this: The committee will do no less about this matter whether the amendment is agreed to or not. It is our obligation to keep up with these matters the very best we can. If this amendment is agreed to or is not, so far as our plans are concerned, we go right on.

I hope it will not start putting us in a straitjacket on everything that comes along because they heard somebody down the street or somebody in California say there might be some question about a plane. That is about what it has come to.

I yield the remainder of my time to the Senator from Washington.

Mr. JACKSON. Mr. President, I wish to speak in support of the recommendation of our Armed Services Committee to authorize funds for production of the new Navy fighter aircraft—the F–14.

My support for the committee's recommendation stems from three principal factors:

First. The F–14 program strikes me as an eminently sensible one. I have given it careful study and audit as a member of the Armed Services Committee.

This airplane is designed and will have potential for growth to give adequate carrier fighting capability through the 1973–80 time period. It is being developed in an evolutionary way, building on the fire control system and engine developed for the F–111.

The F–14 is to replace the Navy's F–4 Phantom as a general air superiority fighter-escort. Carrying the Phoenix missile, it is to perform the fleet air defense mission of the discarded F–111B against Soviet bombers and cruise missiles. It will also have an air-to-ground attack capability.

The concept of the F–14 includes designing the aircraft to accept a more advanced technology engine—higher thrust and lower weight—without changing the basic F–14 airframe. The long-range, multishot F–14 Phoenix system makes it far superior to the F–4J/Sparrow system.

Second. We are already very late in getting a follow-on fighter to the F–4 Phantom It is undisputed that there has been too much delay in the development of a plane to provide improved air superior capability, as a result of the experience with the F–111B.

The F–4—designed 15 years ago—in 1954—became operational in 1961. Since that date the Soviets have developed and flown eight new fighters. It is generally accepted that the F–4 cannot be further improved without substantial redesign constituting a virtually new plane and requiring many millions of dollars. Even then, it would be inferior to existing Soviet fighter aircraft. Further, although used as an air superiority fighter, the F–4 was not specifically designed for that role.

Third. Last year, on the advice of the Senate Armed Services Committee, the Congress authorized and appropriated funds for a new Navy fighter, with the understanding that its development was to proceed as quickly as possible, in view of the time already lost.

The F–14 contract was awarded after an intense Navy competition among five contractors for a program to provide improved air superiority capability in the briefest reasonable time.

The Department of Defense and the Navy are well satisfied with the progress of the F–14. The Armed Services Committee has looked into the program this year and recommends that we go ahead with it. I see no reason whatsoever to slow down or otherwise hold up a sound program that is urgently needed and that is progressing well.

Mr. STENNIS. Does the Senator from Indiana yield back the remainder of his time?

The PRESIDING OFFICER. The Senator from Indiana has agreed to yield back the remainder of his time.

Mr. HARTKE. I am prepared to yield back the remainder of my time.

The PRESIDING OFFICER. All time on the amendment has been yielded back or has expired.

Mr. STENNIS. Mr. President, a parliamentary inquiry.

The PRESIDING OFFICER. The Senator will state it.

Mr. STENNIS. All the time on the amendment has been yielded back, and there is a new parliamentary situation.

Mr. CANNON addressed the Chair.

The PRESIDING OFFICER. The Senator would have to ask unanimous consent for additional time.

Mr. MANSFIELD. Not to move to table.

The PRESIDING OFFICER. A motion to table would be in order; yes.

Mr. CANNON. Mr. President, I move to table the amendment of the Senator from Indiana.

The PRESIDING OFFICER. The question is on agreeing to the motion to table.

Mr. HARTKE. Mr. President, I ask for the yeas and nays.

The yeas and nays were ordered.

The PRESIDING OFFICER. The clerk will call the roll.

The bill clerk proceeded to call the roll.

Mr. MANSFIELD. On this vote, I have a pair with the Senator from Wyoming (Mr. HANSEN). If he were present and voting, he would vote "yea"; if I were at liberty to vote, I would vote "nay." Therefore, I withhold my vote.

Mr. JAVITS (after having voted in the negative). On this vote, I have a live pair with the Senator from North Dakota (Mr. YOUNG). If present and voting, he would vote "yea"; if I were permitted to vote, I would vote "nay." I withdraw my vote.

Mr. SAXBE (after having voted in the negative). On this vote, I have a live pair with the Senator from Nebraska (Mr. HRUSKA). If present and voting, he would vote "yea"; if I were at liberty to vote, I would vote "nay." I therefore withdraw my vote.

The rollcall was concluded.

Mr. BYRD of West Virginia. I announce that the Senator from Washington (Mr. MAGNUSON) is absent on official business.

I also announce that the Senator from Indiana (Mr. BAYH), the Senator from Wyoming (Mr. MCGEE), the Senator from Massachusetts (Mr. KENNEDY), and the Senator from Oklahoma (Mr. HARRIS) are necessarily absent.

I further announce that, if present and voting, the Senator from Wyoming (Mr. MCGEE), would vote "yea."

On this vote, the Senator from Washington (Mr. MAGNUSON) is paired with the Senator from Arkansas (Mr. FULBRIGHT). If present and voting, the Senator from Washington would vote "yea" and the Senator from Arkansas would vote "nay."

Mr. SCOTT. I announce that the Senator from Arizona (Mr. GOLDWATER), the Senator from Wyoming (Mr. HANSEN), the Senator from Nebraska (Mr. HRUSKA) and the Senator from California (Mr. MURPHY) are necessarily absent.

If present and voting, the Senator from Arizona (Mr. GOLDWATER), and the Senator from California (Mr. MURPHY) would each vote "yea."

The pair of the Senator from Wyoming (Mr. HANSEN) has been previously announced.

The pair of the Senator from Nebraska (Mr. HRUSKA) has been previously announced.

The pair of the Senator from North Dakota (Mr. YOUNG) has been previously announced.

The result was announced—yeas 63, nays 23, as follows:

[No. 93 Leg.]

YEAS—63

Aiken, Allen, Allott, Anderson, Baker, Bellmon, Bennett, Bible, Boggs, Brooke, Byrd, Va., Byrd, W. Va., Cannon, Cook, Cotton, Curtis, Dodd, Dole, Dominick, Eastland, Ellender.

Ervin, Fannin, Fong, Goodell, Griffin, Gurney, Holland, Hollings, Inouye, Jackson, Jordan, N.C., Jordan, Idaho, Long, Mathias, McClellan, McIntyre, Metcalf, Miller, Montoya, Mundt, Pastore.

Pearson, Pell, Percy, Prouty, Randolph, Ribicoff, Russell, Schweiker, Scott, Smith, Maine, Smith, Ill., Sparkman, Spong, Stennis, Stevens, Symington, Talmadge, Thurmond, Tower, Tydings, Williams, Del.

NAYS 23

Burdick, Case, Church, Cooper, Cranston, Eagleton, Gore, Gravel.

Hart, Hartke, Hatfield, Hughes, McCarthy, McGovern, Mondale, Moss.

Muskie, Nelson, Packwood, Proxmire, Williams, N.J., Yarborough, Young, Ohio.

PRESENT AND GIVING A LIVE PAIR, AS PREVIOUSLY RECORDED—3

Javits, against, Mansfield, against, Saxbe, against.

NOT VOTING—11

Bayh, Fulbright, Goldwater, Hansen, Harris, Hruska, Kennedy, Magnuson, McGee, Murphy, Young, N. Dak.

So Mr. CANNON's motion to lay on the table Mr. HARTKE's amendment was agreed to.

Mr. STENNIS. Mr. President, I move that the vote by which the motion to table was agreed to be reconsidered.

Mr. JACKSON and Mr. COOK moved to lay the motion on the table.

The motion to lay on the table was agreed to.

SUMMARY

For a given strategy, the number and mix of tactical aircraft depends on, for each theater, (a) the *threat*, (b) the *types of missions* we plan to fly, and (c) our estimates concerning U.S. and allied *capabilities* during combat.

For the NATO and Asian theaters, the air-to-air combat question seems to dominate tactical air requirements. The allies seem to have a clear advantage in other mission categories.

The major kinds of missions flown by tactical aircraft include *close air support* of ground combat operations, *interdiction* of enemy supply and communications lines, *air superiority*, and *air base defense*, including carrier defense.

During the next decade, the Defense Department proposes that several major new procurements take place. Cost of F–14, and F–15 may be four times as much as the aircraft they replace, bringing up questions as to whether present force levels can be maintained. Designs for the new aircraft have given rise to criticism because there seem better designs for solving the air-to-air combat problem which should be our primary concern. Because of the large anticipated role of the F–14 in carrier defense, moreover, final decision on this aircraft should await determination of the future role of carriers.

(1) As regards a new fighter:

Defer F–15 funds, pending submission of a design which costs between F–4 and current F–15 costs. Request detailed force structure implications for our years with force costs.

(2) A decision on a close support aircraft (AX) must carefully consider cost-effectiveness:

We should defer funds pending receipt of data on an alternative fixed-wing aircraft.

(3) The projected high unit cost of F–14 has critical implications for the size of the force. Congress should:

Defer the F–14 funds pending recommendation of role of carrier fleet and pending receipt of an alternative fighter design suitable for the European and Korean theater.

(4) Defer funds for Navy A–7s in the FY 71 pending NSC review of attack carrier force levels, but allow Air Force A–7 procurement to maintain FY 71 production base. We also recommend deferring Harrier funds pending test results of FY 70 production aircraft by the Marine Corps.

The current estimate for the total F–14 program is $8.3 billion; the Administration has requested $274 million for R & D and $658 million for procurement. The House authorized $658 million for procurement and $324.2 million for R & D. We recommend approving $274 million for R & D but allocating no funds for procurement.

The current estimate for the total F–15 program is $7.4 billion. The House has authorized the $370 million for R & D that the Administration requested. We recommend allocation of $185 million for R & D.

The Administration requested $27.9 million for R & D for the AX. The House authorized the full amount. We recommend authorizing the full $27.9 million.

The Administration requested $183.3 million for the Harrier; the House authorized this full amount. We recommend deleting all Harrier funds pending a OSMC–GAO review of the flight tests.

We buy and operate tactical aircraft to fight in several contingencies. In order to plan for adequate tactical air forces within acceptable limits of risk, we must make assumptions about the size and simultaneity of these contingencies. The table below shows several options which could be used for force planning purposes.

	Simultaneous contingencies		
	Major [1]	Assistance	Minor
Previous administration.	NATO and Asia.	None	Elsewhere.
Current administration.	NATO or Asia.	Asian ally [2]	Do.
Alternative	do	None	Do.

[1] Against U.S.S.R. or CPR-supported forces.
[2] Against non-CPR-supported forces.

The previous Administration planned for general purpose forces to fight simultaneously (a) major non-nuclear war in NATO against the Warsaw Pact, (b) a major war in Asia against Communist China, and (c) a minor contingency presumably of Dominican Republic proportions. Although we may need to use general purpose forces in other areas (e.g., as in Southeast Asia), these assumptions provided a hedge against the worst case.

The current Administration has modified the planning assumptions used by the previous Administration. We now plan for our forces to be able to fight simultaneously (a) a major non-nuclear war in NATO *or* in Asia against Communist-supported forces, (b) in support of an Asian ally against a

non-Communist Chinese aggressor, and (c) in a minor contingency elsewhere.

These changes were made for two reasons. First, the changes bring our planning assumptions in line with the new Nixon Doctrine. The Nixon Doctrine calls for our Asian Allies and not the U.S. to provide the major share of manpower (land forces) in meeting the allied defense needs. In addition, the U.S. will stand ready to provide materiel, tactical air and naval force support. Second, a reevaluation of general purpose forces for different strategies and the associated costs indicated that, at least in the Administration view, this planning assumption produced the best balance of the *fiscal* and *political* factors.

An alternative to the current strategy is to eliminate the planning requirement to provide assistance to an Asian Ally simutaneously with a major war in NATO or Asia. Some think that it is unrealistic to assume we would fight anywhere else in the world if we were heavily engaged in Europe. In addition, the simultaneity requires that we plan for extra tactical air and naval forces, support and training bases and mobility. The result is a great sensitivity with costs.

Congress should examine very carefully the strategies that the Department of Defense uses in planning forces. Given a certain strategy, it is important that the military staffs provide their judgments on military issues. In adidtion, the President must be able to control force planning to the extent that the total budget contains his view on the balance of defense and non-defense spending.

However, Congress also should be emphatic about examining the major planning assumptions used in the defense budget, so that it too can establish an independent view of national priorities.

For a given strategy, the number and mix of tactical aircraft we buy depends on, for each theater, (a) our evaluation of the threat, (b) the types of missions we plan to fly, and (c) the estimates we make about U.S. and allied capabilities during combat.

a. The Threat—In Europe, we plan to fight with our NATO Allies against the Soviet Union and their Warsaw Pact Allies (East Germany, Poland, Czechoslovakia, Hungary, Rumania, Bulgaria and Yugoslavia). Soviet aircraft are primarily light interceptors with short range and limited weapons capability. We anticipate that they will fly primarily air defense missions using ground control radars. They are not likely to emphasize offensive strikes since their aircraft are not well suited to this mission.

The primary aircraft in Soviet/Pact inventories is the MIG–21. The aircraft design is older than the F–4. However, like the F–4, it has gone through many model changes in arriving at the current all-weather version. The MIG–17 and MIG–19 are still older and are less capable due to shorter range and weapons capabilities.

NATO is considered to have a large offensive payload advantage over the Pact forces, especially when we consider the new generation attack aircraft like A–6, A–7 and F–111. However, there is considerable uncertainty about the Pact air-to-air combat capability, especially in light of our Southeast Asia experience. In many cases, Soviet built aircraft performed very well in air combat against U.S. fighters. Since it may be possible for the Pact to use interceptors to prevent NATO from flying ground strikes, the air-to-air combat problem appears to dominate tactical air requirements in NATO.

Pact tactical aircraft are protected on the ground at major bases by heavy aircraft shelters and at austere grass fields by camouflaging and dispersal. These measures improve aircraft survivability, but tend to reduce sortie rates and maintenance efficiency. In addition, Pact bases are generally well-defended by anti-aircraft batteries.

In Asia, we plan to fight against the Communist Chinese and the North Koreans. The Chinese have approximately 2,900 aircraft composed mostly of older MIG–17s and MIG–19s. They have some earlier version MIG–21s, however, it is likely that the Soviets are not providing additional aircraft. The North Koreans have approximately 500 tactical aircraft of similar composition. Comments on air-to-ground and air-to-air capability for Pact aircraft apply here as well. Unlike the Soviets, neither the Chinese nor the North Koreans have many large bombers for attacking targets on the ground or in the fleet.

The U.S. has a large payload advantage over the combined Chinese/North Korean tactical air forces. However, the same uncertainty surrounds the air-to-air combat question in Asia as in Europe. We simply have no way of predicting the success of either side in air-to-air combat.

b. Tactical Air Missions—There are four major missions performed by tactical aircraft. Although tactical aircraft are designed for use in conventional (non-nuclear) conflicts, many would be used in tactical nuclear strikes. The emphasis that we place on each mission will depend upon the expected returns relative to the other missions.

(1) Close-Air Support—Tactical aircraft provide close-support to troops engaged with enemy land forces. This mission is especially important in Europe where the Pact has a large amount of armor. Close-support strikes prevent troops from amassing, armored vehicles from breaking through the lines, and friendly troops from being overrun. Large loiter and payload capability are important characteristics for aircraft used in close-support. In addition, survivability against ground fire is important.

(2) Interdiction—Tactical aircraft strike supply concentrations, vehicles and lines of communication in the vicinity of the front. These attacks, called battlefield interdiction, disrupt troop and armored column movement and prevent the enemy from stockpiling supplies near their front lines. Interdiction strikes deep behind the lines of communication and industrial facilities are intended to reduce the flow of troops and supplies to the front. These deep strikes will have a less immediate effect on the enemy troops at the front than close support or battlefield interdiction due to the availability of optional lines of communication and to the short repair/reconstitution times for roads, bridges, etc. In addition, losses on deep interdiction strikes are likely to be higher due to the higher density of enemy AAA and interceptors. Pilots lost on these missions have a very low probability of being recovered.

Thus, there is some question whether we should operate enough aircraft to perform deep interdiction since the payoff is low relative to other missions (close-support and air superiority) and attrition will be high. These missions require high payload and range characteristics. In addition, mission success requires large numbers of escorts and support aircraft. An important target on interdiction missions is an enemy airbase. However, aircraft sheltering greatly reduces the vulnerability of aircraft on the ground.

3. Air Superiority—Tactical fighters are used to protect ground attacks by escorting strike aircraft, by flying protective cover (combat air patrol) or by sweeping the front before strike aircraft arrive. In view of the large number of interceptors in Pact and North Korean tactical air forces, this is likely to be our highest priority mission in the event of war. Air superiority missions require an aircraft with high acceleration, low wing-loading for turning, good handling characteristics, and good visibility out of the cockpit.

(4) Airbase Defense—Fighters are also used for point defense of airbases. Navy fighters fly fleet air defense missions to protect the carrier and its task force from enemy bombers and cruise missiles. Assuming the carrier survives these same fighters must be able to escort strike aircraft against targets on air superiority missions. However, since protection of the carrier is of highest priority, Navy tactical fighters (F–4, F–14) are designed primarily for a fleet air defense mission. Important characteristics are high speed dash, long loiter time and a long-range missile/fire control system. It is uncertain whether the fleet air defense mission will be helpful since carriers may not survive against saturated submarine, bomber and cruise missile attacks regardless of defenses.

c. Capability of U.S. and Allies.

(1) Air Force—The basic Air Force tactical air structure will consist of 23 wings of F–4s, F–111s, A–7s, F–105s and F–100s, reflecting "little change through FY71" (Laird). This force structure is being maintained despite a major change in strategy and sharp reductions in the budget.

Fighters—The highest priority mission in Europe and Korea is close-in air-to-air combat. The F–4 is the only aircraft in the Air Force suitable for air-to-air combat with MIG–21 interceptors. The F–15 is intended to replace the F–4 in close-in visual and longrange missile encounters. However, the F–15 is expected to cost four times the F–4. In view of the lack of resources available through FY 75 (see the Economic Report of the President), there is some question whether the Air Force can buy enough aircraft to be able to defeat even the older, more numerous MIG–21s. As in the past, the Air Force has frozen the design of an expensive aircraft without addressing the out-year force structure implications. When once the aircraft gets into production we have no choice but to buy the expensive version even though national priorities may dictate otherwise. It is likely that we will have F–4s in our force structure for some time, since we will not be able to replace them on a one-for-one basis.

A majority uncertainty is that we do not understand those factors which most influence air-to-air combat success. For example, numerical advantage, high acceleration, low wing loading, high, good handling thrust-to-weight, good cockpit visibility, superior tactics, longer and more realistic training, simple-launch weapons detection capability and fuel capacity are important factors. However, any aircraft design is a trade-off among these factors. Each factor contributes to aircraft cost and weight. The F–15 is its present configuration may be an excellent aircraft for "close-in visual and long range missile encounters". However, the fact that it costs four times the F–14, indicates that it has undergone little scrutiny with regard to trading off "extra nice-to-have capabilities" for cost savings.

A simple example will show that effect of buying an expensive aircraft now has on our force size. Assume we have the option of buying these aircraft. The F–4, the current F–15 design and a modified F–15 not designed for long range missile engagements.[1] If we assume the following costs for procuring and operating these aircraft, the column on the right shows the number of aircraft that $5 billion would allow you to buy and operate for five years. (These costs are fictional and only intended to indicate the order of magnitude of the quality/quantity problem we face. More realistic costs should be requested from the Air Force.)

[1] Eliminating the long range missile requirement makes the aircraft lighter and reduces the complexity of the avionics.

TACTICAL AIR—5

	Procurement	Annual operating	Aircraft available
F-4	3	0.5	910
F-15	12	.75	320
F-15 Mod	5	.6	630

This example shows that unless we impose now a rigid design discipline upon our new fighter aircraft, we will not be able to buy enough to have a credible force. In addition, if we assume modest cost over-runs of 25%, the situation becomes even more severe.

One final point with regard to the F–15 design. It corrects major deficiencies in the F–4 design which were *experienced* during close-in visual combat with Mig–21s in SEAsia; wing loading, acceleration, thrust-to-weight, visibility, fuel, and handling qualities. In addition, it provides a hypothetical stand-off missile capability, assumed to be within the grasp of Soviet technology. Although we know very little about their intentions, we do know from our experience in SEAsia that designing one's own stand-off missile capability is not the best counter to an opponent's stand-off capability. *The F–4 had this capability, but the Mig–21 was still able to force us to close-in engagements due to its maneuverability and tactics.* This would indicate that our best counter to a hypothetical Foxbat is to build the most maneuverable fighter we can.

We have several alternatives with regard to a new fighter for the Air Force.

(a) Approve the F–15 funds as requested.

(b) Approve the F–15 funds, but request details on out-year tactical force structure implications, with details on total force costs.

(c) Defer F–15 funds, pending submission of a design which costs between F–4 and current F–15 costs. Request detailed force structure implications for out-years with force costs.

Attack Aircraft—The Air Force will continue to have a payload capability advantage for a long time. New Soviet aircraft designs have shown some improvement in bomb-carrying capability, but have not approached that of even our 1960 vintage aircraft.

The U.S. has developed a substantial radar bombing capability by investing heavily in the avionics of F–111 (and the Navy A–6). No other country has such radar bombing systems. However, there is some question whether the great expense involved in obtaining these systems is justified by the *low priority need of interdiction at night* relative to air superiority and close-air support in Europe and Korea.

The Air Force has proposed a new aircraft for providing close-air support—the A–X. It is encouraging to see the simple design of the A–X as this should result in a very low cost aircraft to buy, as well as operate. However, the major question is, in light of our current large payload advantage, how can we justify spending any additional funds for a new close-support aircraft? There are several advantages to buying the A–X.

First, Air Force studies show that although large bomb payloads are effective against large point or area targets. they are not effective against armored vehicles—a major concern in Europe. An internal machine gun with suitable ammunition is being considered as a more effective weapon against these targets. Thus, the A–X is optimized against the most likely, as well as the most difficult close-support targets.

Second, a major problem in SEAsia has been the vulnerability of our attack aircraft to ground fire. The A–X would incorporate many features to improve its survivability by an order of magnitude over existing aircraft.

Finally, the A–X program is intended to employ a contracting procedure which will insure a low cost development and production program. Unlike the more expensive F–14 and F–15 programs, the final A–X design will be selected after a prototype fly-off. This reduces the likelihood of non-essential components getting into the design.

Thus, in considering development options for future aircraft, the Congress should examine the A–X very closely. There will be fewer resources available in the future. This means that for a fixed budget, the force level will be eaten away by the higher cost aircraft (F–15). Only if we encourage the Services to examine low cost alternatives on the order of A–X can we hope to maintain the current force levels that our commanders say are necessary. There are two alternatives:

(a) Approve the A–X funds, but request details on force level impact in the out-years (through 1980).

(b) Defer funds pending receipt of data on an alternative fixed-wing aircraft and the impact of its purchase on the force structure. For comparison, Congress needs the impact of this aircraft on the force structure.

(2) Navy/Marine Corps—The number of fighter squadrons remains the same as last year. *It appears the number of attack squadrons remains the same also, although the addition of more A–6s and A–7s adds substantially to capability.* "With the increase in A–7 squadrons in FY71, the number of A–4 squardons will be reduced" (Laird). These squadrons will continue to operate with a carrier force of 15 CVAs and one CVS. Like the Air Force, these levels are being maintained despite a change in strategy and budget pressures.

Fighters—The highest priority mission in Europe and Korea is close-in air-to-air combat. The F–4, currently our best air superiority fighter, was designed by the Navy for a different mission—fleet air defense. This accounts for many of the F–4s deficiencies in close-in air-to-air combat in SE Asia. Although the Navy describes the new F–14 as a "multi-mission fighter", its primary mission is fleet air defense. The aircraft design is clearly oriented toward accommodation of the Phoenix missile and weapons control system. In addition, the variable geometry wing (usd in the F–111) is considered to be a product of the air fleet air defense requirement. We must examine our experience with the F–111 very carefully before approving the F–14 program.

If we assume that protection of the task force is the highest priority mission, the F–14 might be a suitable fighter aircraft for defending against non-maneuvering targets, incapable of saturating the fighter patrols. *However, the carrier is valuable because of the offensive strike capability it provides and not because it can protect itself.* Thus, even if the carrier is capable of surviving, the attack aircraft must penetrate hostile environments with F–14s as escorts and patrol aircraft. Whether the F–14 will be a match in close-in, air-to-air combat for the as-yet-undisclosed follow-on to the MIG–21 is a question we need to examine very closely. *Some sources indicate that the F–14A will be less capable in air-to-air combat than the F–4.*

The Navy indicates that a major role of the attack carrier is the "War at Sea" requirement. In such a mission, the F–14 protects the task force and merchant ship convoys from submarine and bomber-launched cruise missiles. A major problem in this mission is detection. First, there is some question about the adequacy of our ASW capability to detect enemy submarines in time to warn the fighters. Second, with regard to bombers, there is some question whether F–14s could protect against a heavy cruise missile attack which saturates the fighter network by using simple decoys and jammers to confuse our radars. In either case, there is no justification for having large numbers of A–6 and A–7 attack aircraft on-board in protecting against submarine or bomber-launched cruise missiles.

If we now consider the high projected cost of the F–14 and the Phoenix missile system (with unsubstantiated claims of being able to fire six missiles almost simultaneously), we are faced with the same problem the Air Force has with the F–15—*We cannot replace all Navy F–4s on a one-for-one basis with F–14s.* Eliminating the *Phoenix* missile or reducing the number procured would reduce the total cost and provide funds to procure more aircraft. However, an F–14 without an adequately supported Phoenix program is not an acceptable alternative.

Without more details on future year program costs and force structure, Congress is not in a position to approve this program. Approval now locks us into an expensive procurement program with no alternative for a cheaper F–4 replacement. There are several alternatives.

(a) Approve the F–14 funds as requested.

(b) Defer the F–14 funds and request the future cost and force structure implications for a given budget level.

(c) Defer the F–14 funds pending receipt of an alternative fighter design commensurate with European and Korean theater requirements and between F–4 and F–14 costs. Show the effect of both aircraft programs on out-year force structure and costs.

Attack Aircraft—The Navy is completing a modernization program with the procurement of A–7s in FY 70. These aircraft are replacing A–4s currently in Navy wings. FY 71 procurement is to allow replacement of older A–7s in future years due to attrition. Although the A–7E provides a significant increase in capability over the A–4, Congress should be concerned about continuing to purchase this aircraft under the assumption that the 15 carrier force structure will remain intact. Until we complete the land-based/sea-based study currently under review, we cannot reasonably approve the purchase of additional A–7s. There are several alternatives:

(a) Approve funds for Navy A–7s without reviewing force level alternatives.

(b) Defer funds for Navy A–7s in FY71 pending review of Congressional Attack Carrier Study (same as CVAN–70 funds). Allow Air Force A–7 procurement to maintain FY71 production base.

The Navy has proposed procuring additional A–6Es. The new radar system for radar bombing and new engines offers substantial improvement over the A–6As which they will replace. However, since the attack carrier study may indicate a Navy tactical air force reduction, there is grounds for deferral of these expensive aircraft. More importantly, we already have a substantial radar bombing capability and this procurement will not add significantly more to it. Continued production of other A–6 type aircraft (EA–6B, KA6s, KA–6 conversions) might be used to maintain a production base if deferral of A–6E procurement were desirable.

Finally, the Marine Corps proposes the procurement of additional Harrier aircraft in order to complete one squadron. The new V/STOL close-support jet is designed to operate from amphibious ships and forward sites near the troops. The aircraft does not provide a significant improvement in payload capability over existing attack aircraft. Procurement of these aircraft will allow the Marine Corps to fully test such a "forward operating" concept before buying additional aircraft after FY71.

In view of Congressional pressures to "buy America", the Marine Corps has included $24 million extra dollars to have these aircraft assembled in the U.S. The Marine Corps has proposed shifting the production capability to the U.S. over a period of four years. If we decide to procure a large number of Harriers, there would be a more favorable balance of

payments impact by shifting production from U.K. to the U.S. However, since the Marines have not fully tested the aircraft or the "forward operating" concept, there is some question about planning now for a large production of Harriers.

In addition, if we buy only a limited number of aircraft, $24 million is a high price (especially in view of other national priorities) to pay to achieve a small reduction in gold flow. Furthermore, it may be possible to make a different arrangement with the U.K. to reduce gold flow while purchasing the FY 71 production aircraft (for example, in exchange of F-4s). There are several alternatives:

(a) Approve the Harrier funds as requested.

(b) Approve the Harrier funds but assemble the aircraft in the U.K. (saving $24 million); follow-on aircraft procurement deferred pending Marine Corps test results.

(c) Defer Harrier funds pending test results of FY 70 production aircraft by Marine Corps.

(3) Allies—There is only a limited amount of information available on our major allies tactical air capability in Europe and in Korea. It is in the best interests of the Congress to request information about our allies' capabilities so that adjustments in U.S. forces can be made with full knowledge of attendant risks.

SENATE SPEECH BY SENATOR PROXMIRE ON THE F-14, (I)

Mr. President, there are many issues to be resolved in deciding whether to buy the F-14, but they reduce themselves essentially to two.

First, how reasonable is it to build an airplane, equip it with a terribly complicated and expensive air-to-air missile, and then stick it on an attack carrier to protect that carrier and its task force from the spectrum of threats which the Soviets can throw against them?

Second, how reasonable is it to rely on that airplane, with all the performance compromises caused by carriage of that missile, as our next generation Navy fighter?

These are the questions I want to answer. I will talk today about the Phoenix missile and the fleet air defense mission of the F-14. I will then address myself in a few days to the dogfighting capabilities of the F-14 and several of its competitors.

These are the points I hope to make today:

First, the vulnerability of the attack carrier has reached the point where it is as obsolete today for a war at sea with the Soviet Union as the battleship proved to be for World War II. The carrier could not stand up to a concentrated Soviet attack against it. And even if it could, it could not be resupplied to carry out its offensive operations.

Second, there is no substantial evidence that the more than ten years old yet still untested Phoenix missile system could give it a new lease on life. The Phoenix probably could not handle the Soviet bomber threat against which it was designed, let alone those facets of the overall Soviet anti-carrier capability which have been expanding in recent years.

Third, only the Soviet Union has the power to neutralize our carriers. China does not, nor do the lesser powers against which we might be involved. Therefore, we should plan now on a force level of nine attack carriers and the systems needed to defend them in conflicts where Soviet naval forces are not involved.

Finally, I will add a caveat: if these arguments are not accepted—if we do want to provide fleet air defense against the Soviet anti-carrier threat—we don't need the F-14 to do it. There are other equally effective yet much less expensive alternatives available. We could put the new Sparrow missile on either a modified F-4 or the F-15, or we could put the Phoenix itself on a modified A-6. In addition to saving money, these approaches would give us what the F-14 does not—a chance of getting the first-rate Navy fighter which our national security may require.

I. THE BASIC VULNERABILITY PROBLEM

The main function of attack carriers is to serve as floating air bases, which can be used to provide tactical air support to deployed land forces. No respectable defense expert has ever questioned the need to maintain some aircraft carriers for this purpose. The carrier debate has focused instead on important subsidiary issues: how many carriers do we need and in what kinds of conflicts do we plan to use them?

The relative costs of land-based and sea-based tactical air forces and the uncertain availability of land bases in other countries are important factors to be considered in answering this question. But the most critical factor of all is the growing vulnerability of our carriers. It goes without saying that we should not employ our carriers in situations where they and the aircraft on them are certain to be neutralized or destroyed.

The Navy argues correctly that it is very difficult to sink an aircraft carrier and that no modern carrier (Essex class or later) was sunk in the Second World War. But the significance of this admitted truth should be placed in context at the outset. It is true as far as it goes, but it doesn't go very far.

The fact of the matter is that it is comparatively easy to damage a carrier enough to make flight operations impossible and force the ship to return to port for a long period of time for repairs. And in anything but a very protracted conflict, to force a carrier out of action for three months or more would be almost as good, from the enemy's point of view, as sinking it.

It is against this background that World War II experience should be evaluated. As one former defense analyst has noted:

In the Second World War, 60 percent of the carriers that took one hit by a Kamikaze and all the carriers that were hit more than once were forced to return to port for repairs. New carriers with improved damage control features that came into action toward the latter part of the war—Essex class and later—did not fare any better.

And the anti-carrier weapons available today to the Soviet Union are a lot more sophisticated than the Kamikaze tactics of World War II. In testimony last year during the joint hearings on the CVAN-70 aircraft carrier, the Navy listed the following threats to the carrier in the following alleged order of their severity today:

Nuclear weapons
Submarines with cruise missiles
Long range bombers with cruise missiles
Cruise missile-equipped surface ships
Tactical aircraft
Long range bombers with conventional weapons
Gun equipped ships
Ballistic missiles

Granted that we must size all our conventional forces on the assumption that nuclear weapons will not be employed at the outset of a conflict and granted that some of the latter threats can probably be defeated, the list is nonetheless impressive.

Interestingly enough, one threat not included in the Navy's list is submarine torpedoes, one of the oldest and surest forms of enemy attack against any surface shipping. Submarine torpedoes were used with devastating effect by the Germans in World War II, as indicated in more detail later. The Russian submarine force today is about seven times as large as the force with which the Germans entered World War II. Moreover, these submarines are a great deal quieter and difficult to detect than the German subs. Using wolfpack tactics they would have a significant chance of penetrating close enough to our much more detectable carriers to launch their torpedoes against it. And these torpedoes, now of the acoustic homing variety, will still wreak substantial damage. The Navy's devotion to its own Mark 48 torpedo program itself makes the point rather well.

Moreover, these advances in anti-carrier weaponry have been accompanied by advances in the surveillance capabilities needed to bring these weapons to bear. Satellite and long-range aircraft reconnaissance have greatly reduced the ability of naval task forces to hide in the broad expanses of the oceans. And more sensitive submarine sonars and higher speed submarines make it much easier for submarines to find and attack the carriers.

For all these reasons it is virtually impossible today to find a single defense expert outside the Navy who believes that our carriers could effectively survive a determined onslaught by the Soviet Union even with non-nuclear weapons.

Many observers have noted, for example, that four or five hits by Soviet cruise missiles—whether from aircraft, surface ships, or submarines—would force a carrier to retire. Similarly it has been suggested that a few hits on the carrier's four screws by submarine-launched acoustic homing torpedoes would cause enough loss of propulsion power to make normal flight operations impossible and to greatly reduce the carrier's ability to avoid further damage.

The problems of defending against this limited number of hits has also been pointed out. The effectiveness of anti-submarine warfare (ASW) measures in any particular engagement is limited by the inherent variability of the underwater acoustic environment and the unreliability of sophisticated sonars. And anti-air warfare (AAW) improvements are likely to be overwhelmed by improvements in offense, such as higher speed and lower altitude missiles. The net effect is that both types of defense can cause substantial enemy attrition over a long period of time but cannot provide strong assurances that a carrier could survive a determined attack.

And that is precisely the kind of attack which the Soviets would throw against them. Testimony to Congress by Navy spokesmen in recent years has stressed the Soviets' growing anti-carrier capability. Attempts have also been made to calculate the effects of a concentrated attack against the two or three carriers we could hope to have deployed somewhere at any one time.

One such calculation is set forth in the Brookings Institution analysis of the fiscal 1972 defense budget. It suggests that the modest Soviet bomber force *alone* could completely neutralize our carriers:

This fundamental point is worth elaborating by a purely illustrative and highly simplified model. Suppose the USSR is willing to expend twenty-five bombers, each capable of carrying one air-to-surface missile, and their fighter escorts, in order to disable one carrier. (The Soviets have in their naval aviation force some three hundred ASM-capable bombers, whose primary mission would be to attack U.S. carriers.) Suppose also that the ASMs have 80 percent reliability and, very optimistically, that our fighter defense would have a 40 percent chance of shooting down a bomber in a single engagement and our surface-to-air missile systems (SAMs) an 80 percent probability of shooting down an incoming ASM. With these assumptions, the bombers would get six hits on the carrier, more than enough to force it to retire. Less optimistic assumptions on defense would sharply reduce the number of bombers needed to put a carrier out of action.

If anyone thinks this is an exaggerated analysis, let me stress its assumption that each Soviet bomber is capable of carrying but one ASM. According to testimony last year in the CVAN-70 hearings, some of these Soviet aircraft have a multi-missile capability.

Another calculation, by former defense official Leslie H. Gelb in testimony before the Senate Defense Appropriations Subcommittee this year, reached even more pessimistic conclusions. Gelb's calculations were based on the realistic assumption that the Soviets would not rely on their bomber force alone but use submarine cruise missiles and surface to surface antiship missiles as well.

The Soviet Union would, in all probability, launch a large number and variety of missiles against our carriers. Assuming the carrier defenses against this attack could destroy as many as 80 percent of the incoming missiles (and this is a very optimistic assumption), the probabilities amount to a virtual certainty that our carrier would take about a dozen hits. . . . Recent tragic experience with the Forrestal and Enterprise—where in each case an accidental firing of one of our rockets led to many deaths and extensive damage by fire and explosion—indicate how little it might take to put a carrier out of operation and force it to retire.

And some analysts suggest that these calculations are conservative, that even one well-placed hit might put a carrier out of action. They note that carriers have to be moving into the wind at a fast clip to permit normal flight operations and that one hit alone might prevent this. They also note that the Soviets might use incendiary cluster bombs as the warheads of their cruise missiles and that one such missile could wipe out most of the aircraft sitting on the carrier's back. Even more conservative is the complete omission of the torpedo threat.

None of these arguments are new, however. The carrier debate has raged for years, with little apparent effect within the Navy itself. The Navy admits the increasing vulnerability of its carrier force, but refuses to admit that the danger point has been reached. It cites the defenses of the carrier against possible attack. It notes that all carriers present mobile targets, and that nuclear carriers have unlimited endurance at high speed. And it cites the extensive protection features, such as armor flight decks and torpedo side protection systems, designed into our latest carriers.

I am simply not persuaded by these arguments. Little confidence should be placed in a carrier's 30 knot speed as a means of preventing detection of its position—particularly in view of the tremendous increase in underwater noise generated at this speed. Moreover, the carrier can maintain this speed for extended periods only if it foregoes the protection of its slower escorts and while not conducting flight operations. As far as carrier protection features are concerned, great progress was made duing the course of World War II, but developments since have been much slower, since there was really little more left to do.

I am firmly convinced that our carriers are already sitting ducks for the kinds of multiple attacks the Soviets could mount against them. And whatever the situation which exists today, it will clearly be worse yet when the new nuclear carriers already under construction finally enter the fleet.

II. THE PROBLEM OF RESUPPLY

Nonetheless, I would like to turn briefly at this time to one element of the carrier vulnerability problem which has received too little attention to date. The vulnerability of carriers on station against the Soviets is bad enough. But the vulnerability of their logistics systems and the carriers themselves in the process of being supplied is actually a good deal worse.

The Navy itself has recognized as much.

First, Admiral Holloway on the comparative aspects of the problem; during the CVAN–70 hearings last year:

All ships are vulnerable to the anti-ship missile. Most vulnerable are the unarmored tankers, ammunition ships, and troop carriers which support our overseas allies and our own deployed forces. Also vulnerable are our attack carriers, but due to their high speed, protective armor, and self-defense capability, attack carriers are the least vulnerable of any of our forces at sea.

Next, Admiral Rickover on the actual magnitude of the supply ships' problems, in testimony earlier this year to the Joint Committee on Atomic Energy:

The World War II experience: "I am sure you remember the large number of tankers sunk in World War II by German U-boats—submarines that were much slower and far less capable than those the Soviets have today. Moreover, Germany started the war with only 57 submarines. The United States lost over 130 tankers in the Atlantic Campaign, mostly to German submarines. By mid-1942 the situation was desperate. So many tankers were being sunk that the supply of military fuel to Europe and the Pacific was threatened. Then, too, the deciding factor in our defeat of Japan—also an island empire—was the ability of United States submarine and air forces to interdict the flow of oil from overseas to the Home Islands; this strangled Japan's industrial and military effort and brought about her collapse.

Tankers then and now: "During World War II we had a large number of small tankers. Most tankers were of 10,000 to 15,000 tons full load, with the largest about 25,000 tons. Therefore sinking a tanker at that time did not have anywhere near the impact as would be the case if one of the large tankers we have today were sunk. Presently, many tankers are over 100,000 tons, and plans are being made to build tankers of 500,000 tons and larger. One such tanker carries many times the oil of the World War II tankers; also they offer a much larger target and so can be sunk more easily.

Present military implications: "The greatest vulnerability of surface warships results from operating restrictions required to conserve propulsion fuel and to supply the propulsion fuel. The refueling ships must steam at slow speeds and on fixed courses. They would be "sitting duck" targets for attack by torpedo or missile firing submarines. Further, the fuel oil must be brought to the warships by tankers which themselves are slow targets vulnerable to enemy submarines and air attack.

"As I see it, in a war the Russians would immediately sink the tankers, which would immediately shut off oil supplies to Western Europe and to our oil-powered forces at sea. It would then make no difference what supplies we tried to get across. Without propulsion fuel modern armies are powerless. In a short time prepositioned fuel would be used up and we would be facing overpowering odds . . . Ships with short cruising radius will not survive a war with the Soviets."

These are rather forthright statements and it is important to recognize the purpose for which they were made. Actually, they form the backbone of the Navy's argument that any future carriers we build—and their escort ships as well—should be nuclear-powered rather than conventional models.

Nuclear ships, the Navy argues, are not dependent on external fuel for their own propulsion. They can transit the oceans to a new station at high speed and without refueling. They can hold these stations without the periodic reductions in a task group's readiness which would be occasioned by refueling. Tanks otherwise used to store carrier and escort fuel can carry aircraft fuel instead. And the higher speeds of nuclear ships reduce vulnerability and increase target coverage.

But while the Navy points out the great difficulties of resupply operations at sea in order to shore up its case for more nuclear-powered surface ships, it fails to call any attention to another implication of these difficulties.

Nuclear-powered carriers may not need refueling to propel themselves, but they must be supplied with aircraft fuel and ammunition if they are to provide any punch in the first place. And the supply problems here are every bit as grave as the tanker problems to which the Navy admits.

There is no single answer to the question of how long a carrier can go without being resupplied with aircraft fuel and ammunition. Nuclear carriers have twice the capacity for aircraft fuel and 50 percent more for ammunition compared with conventional carriers. And any carrier's consumption rates are obviously going to depend on the intensity of the operations conducted.

But in conflicts involving the Soviet Union the operations would be intense, perhaps approaching one sortie per day at maximum gross weight of ammunition and fuel for each aircraft on the carrier. Even granting the differences between carriers, the simple fact of the matter is that no carrier could hope to keep operations going under these conditions for more than a few days at a time!

The precise time involved is not important, but its relative shortness is critical. After only a very short time, the carrier would be in need of resupply, and its logistics system—composed of underway replenishment ships, tankers, and ammunition boats—would be subject to all the difficulties of other surface shipping. These supply vessels would move slowly, having to be refueled, and without the many defensive systems protecting the carriers themselves.

The implications are devastating. Even if we could succeed in protecting our carriers through multi-billion dollar investments in sophisticated defensive gear, we would still be unable to get through to them the supplies needed to permit continuation of the offensive operations they provide. The front door might be guarded, but the back door would still be ajar.

And suppose that a few supply ships did get through, Navy statements above notwithstanding. Our carriers would have to reduce their own readiness in order to be supplied. They would have to leave their stations, move to a replenishment area out of range of land-based enemy aircraft, and then slow down for the actual transfer.

At this point they would still be in range of Soviet submarines, with both their acoustic homing torpedoes and their cruise missiles. It is clear from published sources that these missiles, touted by the Navy as the most serious threat to the carriers, can be launched from a submerged position, many miles away, on the basis of intelligence received. With the missile traveling at the speed of sound, probably undetected before launch (we can't have ASW planes everywhere at the same time), it poses a formidable threat indeed.

III. FLEET DEFENSE AND THE F–14

Much more could be said about the vulnerability of attack carriers. But where does the F–14 fit into this basic picture?

The Navy's interest in providing its carriers with a means of defense which would permit their use in high intensity—even nuclear—conflicts with the Soviet Union dates back a good many years. In the 1950's the main concern was Soviet employment of their new nuclear capability against the carriers.

It was clear even then that a single nuclear weapon delivered anywhere in the vicinity of a carrier would wipe out an entire task force. The Navy desperately wanted a weapon that would destroy 100 percent of the Soviet's missile launching bombers—then the chief nuclear threat—in a massed attack against the task force. The original proposal was called Eagle-Missileer and work was started on it in 1958. The F–14 is a rather straightforward outgrowth of that work.

The Missileer was a low performance, long loiter aircraft capable of functioning as a missile platform, and its objective was the simultaneous tracking and firing of six

missiles against the postulated threat of massed Soviet naval bombers. The Eagle was the missile it would launch.

Eagle-Missileer was canceled in 1961 due to technical infeasibility, and a similar verdict was soon pronounced on the use of carriers in any future nuclear wars. But the Navy never abandoned its basic concept for the missile. As our conventional forces were beefed up in the early 1960's, the Navy resubmitted its requirement for an anti-bomber fleet air defense missile to protect the fleet against the new threat of non-nuclear bomber attack in the performance of its tactical air support role.

Appropriately enough, the new missile was named the Phoenix, and until 1968 it remained tied to the ill-fated F–111B airplane. This is neither the time nor the place for a complete analysis and apportionment of blame for the TFX fiasco, but a few words are necessary to place in context the decision to proceed with the F–14.

Whatever the wisdom of Secretary McNamara's insistence on a single plane to meet the Air Force's desire for a deep interdiction bomber and the Navy's desire for a fleet air defense interceptor, the Navy was opposed to the F–111B from the outset. One of the initial concessions it extracted in return for participation in the program was the right to incorporate in the new plane both a new version of the cancelled Eagle missile and the cancelled TF–30 engines which had been developed for the Missileer.

Little consideration was given by anyone at the time to the dogfighting capabilities of the new plane. The F–111B was regarded simply as an interceptor. The main advantage it offered over the Missileer was a significantly increased speed and acceleration capability which was intended to enable it to get into its intercept position more quickly than the old plane. The Phoenix itself could shoot everything out of the sky, the Navy said, so forget maneuverability.

It would not be unfair to say that the Navy first became concerned with the dogfighting capability of the F–111B when it saw this as an opportunity to kill the plane and get a true Navy aircraft of its own. Working together with several aerospace companies, such as Grumman Aircraft Company—then a subcontractor to General Dynamics on the F–111B—it encouraged the design of new airplanes which would still carry the Phoenix missile but also be better dogfighters than the F–4 Phantom, then and now our first-line Navy fighter.

The improved capabilities of alternative planes—and the technical problems with the F–111B—were argued vigorously in testimony on Capitol Hill, and in 1968 both the Senate and House Armed Services Committees deleted all funds for the F–111B from the budget. Working feverishly, the Navy then saw to it that a contract with Grumman for the F–14 was rushed through before the Nixon Administration could carefully review it after taking office.

The F–14 is thus the third plane to carry the Eagle-Phoenix missile and to be powered by a version of the TF–30 engine. And it is still primarily a fleet air defense interceptor. After the F–111B was killed, the Navy never seriously evaluated the possibility of incorporating a Phoenix fleet air defense missile capability in a first-rate fighter aircraft. But this was then and remains now a technical impossibility, as I hope to explain in a few days. Unfortunately, our need for a first-line carrier based fighter to replace the F–4 is a good deal greater today than in either 1958 (when the F–4 was itself in development) or 1968.

Another thing which has changed since 1958 is the nature of the Russian threat to our carriers. What was envisaged then was a dramatic increase in the number of Russian naval bombers, the threat against which the Phoenix was designed. While there is extreme doubt whether the Phoenix could handle the Russian bomber threat which exists today, that threat has never expanded as predicted for the past ten years. As House Appropriations Committee Chairman George Mahon, noted in 1968: "The bomber threat against the fleet, as you know, has been predicted by Navy officials for some time. It has, of course, not developed to date."

What has developed is the many faceted threat described earlier. It is worth evaluating the role of the Phoenix in the spectrum of defenses we have now erected against this threat to see why it would almost surely be ineffective.

The Phoenix is a long-range air-to-air defensive missile, which the Navy claims will be capable of destroying "multiple targets in a heavy electronic countermeasures environment in all weather conditions." It will be guided by the F–14's AWG–9 fire control system, which is also designed to handle six single shot Sparrow missiles.

According to the Navy, the Phoenix already has an enviable test record on which to stand, with a success record of approximately 70% in the 40 or so firings to date. This claim deserves some rather careful scrutiny.

In the first place, Navy statistics do not include the substantial number of unsuccessful firings in which the missile never left the launch rail because the launch system failed prior to the actual launch. These failures, which should obviously be included on any realistic score sheet, must be carefully distinguished from the much smaller number of recorded "no test" firings—firings in which the missile was launched but failed to hit its target due to defects in the test conditions not related to the missile system itself.

Moreover, all the tests conducted to date have been engineering tests, held in a laboratory-controlled environment, and almost all have been against single targets with artificially augmented radar signals and little or no maneuvering capability. Operational tests, under conditions representative of actual combat experience, have yet to begin. Due to the incredible amount of concurrency in the whole F–14 program, these operational tests are not scheduled to be completed for another several years, by which time any decision on the F–14 will long since have been made.

Finally, this terribly artificial test program has itself been very limited in scope. Virtually all of the test firings to date have been tests of the *old* AWG–9 Phoenix system developed for the F–111B. The new version for the F–14 has more than one-third less weight and has been completely redesigned for tandem seating and to accommodate the Sparrow missile.

And despite the Navy's claim that the system will be capable of near simultaneous launch against up to six widely separated targets, no more than two simultaneous firings—even of the old version—have been attempted at any time to date. Thus it is difficult to evaluate the argument of some critics that the AWG–9 tracking capacity would be swamped if it ever attempted to fire six missiles simultaneously in the presence of one or two dozen targets on the radar scope. Yet even in the last multi-shot test, one of the two missiles missed its target.

But one need not dwell on the scarcity of test data on the Phoenix. It is really quite similar to other air-to-air missiles which have entered our inventory in the past several years. Some of these missiles had initial test records every bit as "promising" as the Phoenix but exhibited serious deficiencies when used in Vietnam. Our experience with the Sparrow missile is instructive in this regard. It is a radar guided missile like the Phoenix, but somewhat less sophisticated and expensive. (The present version of the Sparrow costs $40,000 per shot, the Phoenix $400,000.)

One problem the Sparrow has had has been its inability to distinguish between friendly and enemy targets. It has been designed for launch at a range of roughly 15 miles, well beyond the range of visual contact. Unfortunately, its radar system can pick up aircraft blips at this distance, but can't tell who the blips belong to.

This had had a significant effect on use of the Sparrow in Southeast Asia. Despite the fact that it was designed for stand-off launch, orders have been in effect prohibiting its stand-off use at times when friendly aircraft might be present. Until billions of dollars had been spent, nobody realized that we wouldn't be able to fire at will on non-responding radar blips—because they might be Laotian airliners flying to Hanoi or Air Force planes not tied in to the Navy's communications system! And part of the reason for the Sparrow's poor record under *visual* launch conditions has been the fact that many of these launches were from inside its minimum effective range!

Another problem of the Sparrow has been its poor reliability—its failure to even launch and fly. The artificial nature of its initial test program has been only partly responsible. More important has been the fundamental complexity of design which made it unable to withstand rigorous combat handling procedures.

When conditions did permit its use and it was to be fired, the Sparrow and its radar search system may have scared away as many enemy aircraft as they found. The explanation is simple. One of the problems of all airborne search radars and active radar missiles is that they broadcast their position for miles around, thus alerting enemy aircraft to their presence.

Moreover, these airborne radars have an effective search pattern only in a very narrow cone directly in front of the airplane and cannot locate more dangerous and undetectible targets flying elsewhere. As a result, enemy aircraft guided from the ground have been able to avoid this narrow search pattern and pop up unsuspected and undetected on the tails of our aircraft.

When we have in fact acquired enemy aircraft (almost always visually) they have often been able to outmaneuver the Sparrow by hard turns at normal combat g's. This has been the result of inherent physical limitations in the maneuverability and response times of the missiles themselves.

Finally, the Sparrow has shown itself susceptible to simple electronic countermeasures which degrade its performance.

The actual performance record of the Sparrow in terms of targets killed per firing remains classified, but this much can be said. Due to the target differentiation problem, it simply has not been used much of the time under the conditions for which it was designed. And when it has been used, its demonstrated performance has been only 10% as good as the performance originally expected.

There is every reason to believe that the Phoenix will fare no better and might fare worse. Much of what has just been said is directly applicable, but let me cite a few particulars.

First, one of the advertised advantages of the Phoenix is its significantly longer range than the Sparrow. (According to the DMS Market Intelligence Report, "Phoenix was initially intended to have a range of more than 200 nautical miles, but has since been scaled down to an estimated 80 n.m. range.") Yet tests conducted by Hughes Aircraft Corporation, manufacturer of the Phoenix system, confirm that it has no capability against maneuvering targets except over the shorter stretches of its range. Beyond a certain point, the tests showed, the Phoenix rocket motor burns out and it cannot get the maneuver energy needed to keep up with a target which can quickly change directions!

Second, hardware tests at the Naval Weapons Center's Corona Laboratory have shown that the Phoenix can be effectively countermeasured by simple low power techniques.

Third, a study has been conducted which indicates that the Phoenix will have severe reliability problems due to many of the same complexity of design features which have made the Sparrow unable to withstand rigorous combat handling procedures.

Fourth, the very nature of the F–14's dual role as fighter aircraft and fleet defense interceptor aggravates the target discrimination problem, i.e., distinguishing friendly aircraft from foes. About the only time a long-range Phoenix launch could be used to protect the carrier is when there are no friendly attack aircraft or F–14 escorts carrying out tactical air operations from the carrier. But one of the main reasons for having and protecting carriers in the first place is to conduct such operations!

Opinions differ as to whether a solution to this identification problem will be found, but there is no demonstrated solution yet in sight. And even if a secure and reliable communications system were established between our own airplanes, it would still be very risky to fire at will against unresponding radar blips in all theaters. Crowded areas like the Mediterranean, for example, would still contain friendly aircraft not tied in to our communications system. The E–2C (essentially a Navy AWACS) might keep track of some of their movements, but it is far from foolproof and terribly vulnerable.

These deficiencies would be serious enough if the Phoenix had nothing but Russian bombers to defend against! But they would be magnified if it were pitted against the expanding Soviet cruise missile threat, to say nothing of the high maneuverable fighter aircraft which would be well within range of a carrier in the Mediterranean.

As far as cruise missiles are concerned, there must be doubt in the first place whether the Phoenix would have the maneuverability to correct for errors in its estimates of their direction and velocity. And even if it were successful in meeting its design specifications against high speed, low flying targets with small radar cross sections, the F–14 would have to be in a narrow cone directly ahead of the missiles if it were to see them at all. The search patterns of airborne radars, it should be noted, is especially limited in the look down mode. And it is also significant that the more clutter suppression one designs into such a radar, the more vulnerable it will be to countermeasures.

But let's suppose that these problems were solved! The Russian bombers might still be able to defeat the system by a simple choice of tactics. A simple example, without specific numbers, will suffice to demonstrate the point.

We will have only a limited number of F–14's aboard a carrier and only a handful—with a maximum of 6 Phoenix missiles each—will be in the air at one time. Against these F–14's the Soviets could concentrate a significantly larger number of naval bombers, since the bomber could strike at a time of their choosing and would not be on serial airborne alert. These bombers could then be deployed in waves, the first bomber exhausting the limited number of missiles in the air and the next wave moving in on the carrier before reinforcements reached the scene. These tactics would be aided, moreover, if the bombers were able to maneuver out of the way when warned that a Phoenix was coming, if they were preceded by more maneuverable fighters, if they carried the jamming equipment we already know works, or if a few submarine launched missiles were used to create a diversion.

There is one other related point. If a war at sea ever did break out between the Soviet Union and the United States, it would probably be initiated by a surprise Soviet attack on our carriers, at a time when their defenses were low. We have worked very hard since the dawn of the nuclear age to minimize the chances of any direct engagements with the Soviets, and it is very unlikely that we would initiate one. Such an engagement would probably come, therefore, only if we miscalculated the Soviet response to one of our actions or if the Soviets made an irrational and unprovoked move of their own. Under these surprise attack conditions we could expect only a small fraction of the F–14's aboard a carrier to be either in the air or serviced for immediate use.

I have purposely saved till last a discussion of the staggering costs of the Phoenix and its fire control system. When the missile first rose from the ashes in 1962 and became a part of the F–111B program, total development costs, according to DMS Market Intelligence Report, were estimated at $175 million. They have now risen, the Report says, to well over $500 million and development is far from complete.

More worrisome are the likely production costs of the Phoenix, already estimated at $400,000 per shot, without any allowance for deficiency correcting modification costs. Another factor which could drive costs upward is a smaller than anticipated Phoenix buy. Published estimates of the buy have ranged from a low of 1,400 to a 3,700 high, with the lower part of the range associated with the small F–14 buy which is probably inevitable even if the program continues.

It cannot be stressed too much that the cost of one of F–14's six Phoenix missiles, even at the $400,000 price, would be $2.4 million. That is the approximate price for three Mig–21's and for one of our own F–4 fighters! And this would be in addition to the $16 million price tag on the F–14 itself!

Actually, the high costs of the Phoenix would do more than affect our pocketbooks. They would also have an adverse impact on the already poor effectiveness of the missile.

For one thing, these high costs would inevitably affect Navy training programs for the Phoenix, just as training programs for the Sparrow have been affected by its comparatively cheaper costs. With the costs of each Phoenix firing approaching a half million dollars, very few Navy aviators would be allowed even one training shot. Most of their training would consist of dry runs, where they locked on targets with the AWG–9 system and then pressed the button which in battle would launch the Phoenix. There would be some value in this limited training, but it would not inspire confidence for combat use.

Moreover, it is doubtful whether any purchase within the 1,400 to 3,700 range now contemplated would provide us with the number of missiles combat could realistically require. A buy of 2,000 missiles, for example, would give us only one full load for 300 F–14's, with 200 extra for training and spares. One full sortie per plane is not a very comfortable margin. Looked at another way, these 2,000 missiles would be wholly expended if 12 planes a day flew fully loaded sorties in a 30 day conflict with the Soviets—even if all the missiles somehow could be rushed to the scene!

I recognize that these calculations make no allowance for the fact that on many sorties some or all of the missiles would not have to be fired. It is highly unlikely, however, that all unfired missiles would actually be brought back on board the carrier. There are two aspects to this problem.

The first aspect concerns the degradation of its already limited dog-fighting capability which the F–14 would suffer if it attempted to engage in aerial combat carrying a full load of Phoenix missiles. Navy planning for the F–14 fully recognizes that the extra weight and drag of these missiles would significantly degrade the plane's maneuverability. Accordingly, the Phoenix is designed to be carried in readily removable pallets, attached to the plane's fuselage. When programmed for a dogfighting mission, neither these pallets nor the missiles would be carried. And when they were carried for fleet defense purposes and a dogfight situation arose, they could be dropped in the ocean to maximize fighter capability.

This last prospect is rather disturbing. In the Mediterranean, for example, it would be possible to operate out of range of land-based fighter aircraft when configured for the fleet defense mission. Under these circumstances, the F–14 could be set upon by enemy fighters at any time. When this occurred, the prospect is that $2.4 million worth of missiles—more than the likely cost of the enemy aircraft itself—would be quickly released to the ocean depths.

The second aspect of the problem is more serious. Notwithstanding Navy statements that F–14 "design specifications require that any combination of fuel and unexpended ordnance up to a total of 10,000 pounds can be brought back aboard the carrier, "there remain serious doubts about the ability of the F–14 to land on a carrier with a full Phoenix load.

For one thing, Navy pilots have an understandable aversion to landing on a carrier with a dangerous ordnance load, especially in bad weather conditions, and might be tempted to lighten up.

Moreover, the weight of six Phoenixes and their pallets has been publicly estimated at between 6,000–7,000 pounds, which reduces to 3,000–4,000 pounds the margin of error remaining. This margin is reduced even further if allowance is made for necessary fuel landing reserves, dogfight missiles, and the cannon pallet, and it could be eliminated altogether by weight increases on the plane. It is worth noting in this regard that the Navy is already projecting a 700 pound weight increase for the F–14, an increase which will be slightly more significant without the "B" engine, given its own lesser weight than the "A". Any further weight increases, perhaps necessitated by modifications work, could easily break the camel's back.

IV. THE POLICY IMPLICATIONS

Mr. President, the vulnerability of the attack carrier has reached the point where it is as obsolete today for a war at sea with the Soviet Union as the battleship proved to be for World War II. The carrier could not stand up to a concentrated Soviet attack against it. And even if it could, it could not be resupplied to carry out its offensive operations.

Nor is there any evidence that the more than ten years old yet still untested Phoenix missile system could give it a new lease on life. The Phoenix probably cannot handle the limited threat against which it was designed, let alone those facets of the overall anti-carrier capability of the Soviets which have been expanding in recent years.

These considerations do not mean that we should retire all our carriers from the force. Only the Soviet Union possesses the spectrum of threats capable of jeopardizing the carriers. China could not do so, nor could the lesser powers against which we might be involved. All these countries have is a small and obsolete bomber threat, a few old and noisy submarines (about 30 in the case of China), and possibly some new Soviet-provided patrol boats with their Styx missiles. They would also have some new fighters exported by the Soviets, but these could best be defended against by a new light-weight fighter of our own.

If we made the needed decision to size our carrier force for use in conflicts involving these countries, it would reduce to nine the force level required. This force level would allow one carrier to be continuously on station in the Mediterranean and two in the Pacific, or vice versa. And each of these deployed carriers could be re-inforced during

a crisis by one or two of the back-up carriers. In a war-time situation, an even larger number could be rushed to the scene.

Such a decision would also permit a drastic reduction in the large number of programs now underway to protect the carrier, programs which make no sense except in terms of the Soviet anti-carrier threat. Consider for a moment some of the presently on-going programs designed to provide carrier protection against the Russian cruise missile threat alone:

The Condor missile, which can be fired from attack aircraft at long range against ships, patrol boats, or surfaced submarines;

The Harpoon missile, which is being developed to do the same job from our surface warships and from aircraft.

The E–2C long range detection aircraft;

The S–3A carrier-based anti-submarine warfare aircraft;

The LAMPS helicopter which will operate from escort ships;

The AEGIS surface-to-air missile system;

The Improved Point Defense Missile System;

The Close-In Weapons System;

Advanced electronic warfare systems such as SHORTSTOP; and of course

The F–14 and the Phoenix.

Many of these programs—some with problems of their own—would not be needed to protect our carriers in non-Soviet engagements. In other potential conflicts, we could rely on a much less complex but probably more reliable set of defenses. The primary elements of these defenses would be simple electronic countermeasures, anti-aircraft guns, and existing shipboard surface-to-air missiles. We might also want to keep reliable modifications of a few other systems in which we have invested so heavily.

As far as defensive missiles are concerned, it is important to recognize that any reasonably reliable shipboard missiles have a significant advantage over their airborne counterparts. They would not be chasing elusive aircraft and missiles on their way to other targets, but would instead be located with the targets themselves and have the much easier task of intercepting directly incoming missiles. We could complement these shipboard missiles with a fleet air defense capability, but we would not need the F–14 or Phoenix. We could if we wanted use the F–4 and the Sparrow. But all we would need against the few obsolete bombers of other countries is a good new fighter with anti-aircraft guns and reliable missiles like the Sidewinder.

If steps of this kind were taken, significant economies could be realized and funds made available for other high priority Navy programs, such as submarine fleet expansion and programs to reduce the carrier dependence of our surface Navy itself. It makes little sense and is highly dangerous to keep concentrating our surface forces around an increasingly vulnerable focal point. Some means must be found to disperse those forces if their abilities are to be preserved.

V. A FINAL CAVEAT

I have discussed the problem of carrier vulnerability and the failings of the Phoenix in such detail for three reasons.

First, the fleet defense mission is central to the basic rationale of the F–14. What the Navy has wanted for almost fifteen years is an airplane from which to launch the Eagle-Phoenix to protect its carriers. The Missileer, the F–111B, and the F–14—all have been fleet defense interceptors above all else. Just how poor a fighter the F–14 is I'll explain in a few days. Its fleet defense syndrome is *why*.

Second, I wanted to explain in full what I thing is a basic truth—that any money spent on air-to-air missile defense against the Soviet anti-carrier threat will be money down the drain. It will be money diverted not only from important domestic programs, but from other defense programs which could serve our interests better.

Third, the fleet defense emphasis in the F–14 program is symptomatic of a far more pervasive problem in the Navy today. There are many other items in the Navy budget at this time which make no sense at all except in terms of the Soviet anti-carrier threat. Money spent on them may be wasted too. We should keep this in mind as other carrier-related issues keep coming before us.

But I would like now to make a final caveat. If, despite all the evidence of its futility, we still want to provide air-to-air missile defense of our carriers against the Soviets, we don't need the F–14 to do it. There are *other* ways which would be equally (in)effective, far less expensive, and which would not rob us of the first-rate Navy fighter our security may require at this time.

One approach would be to put the Phoenix itself on the A–6, one of the Navy's interdiction aircraft. This option was seriously considered by the Navy during the dying days of the F–111B. It might well have been chosen if so much emphasis had not been placed on the F–111B's own inability to carry the Phoenix and still be a fighter in the attempt to finish it off.

The A–6 would be similar to, but an improvement over, the old Missileer. It has all the range, loiter and payload capabilities needed in a fleet air defense interceptor. It would be able, in all probability, to loiter longer and to carry even more than the six Phoenix missiles carried by an F–14. The only possible advantage of the F–14 would be the greater acceleration it could provide. It is supersonic, while the A–6 is subsonic, so it would get into its intercept position faster. It is doubtful, however, that this advantage would ever matter. The F–14 itself would have poor acceleration with a full external Phoenix load, poor enough that it is highly doubtful that an F–14 not already on station could be brought to bear in defense against a fast bomber raid. The key to such a defense would be loiter time on station and here the A–6 would get the nod.

We already have a great many A–6's. We have been buying them for almost 10 years and 12 of the latest version, the A–6E, are included in this year's budget. The basic cost of an A–6 inframe, without avionics, is under $3 million.

We could buy more A–6's for the fleet air defense role. With the AWG–9 avionics system substituted for the avionics now on board, the cost would be about $6-$7 million per plane.

Or we could change avionics packages on some of the planes we now have. Another thing the Navy doesn't need is more interdiction aircraft. It already has about twice as many aircraft supporting the interdiction mission as it has fighters aboard its carriers, despite the limited pay-offs of interdiction.

This restructuring of its aircraft mix would also solve any deck crowding problem which might result if we were to add both A–6 interceptors and a new fighter to the carrier air group. The real source of the crowding problem in any event is no longer the aircraft deck space available, but an inability to house the large number of maintenance personnel needed to handle the increasingly complex and difficult to maintain expensive new aircraft we like to buy.

Another approach would be to rely on the Sparrow missile for fleet air defense. It might actually be better for the job than the Phoenix.

I spoke earlier about the performance record of the Sparrow in Vietnam. It should now be noted that Raytheon Corporation, manufacturer of the Sparrow, is at work on a completely new version—the AIM–7F—which hopefully will solve some of its problems. The new verision is expected to have fully twice the maximum range of the old, as well as a shorter minimum range to permit use under conditions when the presence of friendly aircraft prevent its stand-off launch. It will be solid state and will fly dormant until activated just prior to launch in an attempt at better reliability (its ability at least to launch and fly). And it is hope it will have much greater capability against maneuvering or high-speed enemy targets. These points should be kept in mind in comparing the capabilities of the two missiles.

The Phoenix would appear to have two advantages.

The first is its significantly longer range. This advantage is greatly minimized, however, by the fact that the Phoenix has poor capability against maneuvering targets, especially over those stretches of its range which are beyond the maximum of the new Sparrow.

The Phoenix also has a simultaneous multiple-shot capability which the new Sparrow lacks. But here too the advantage may be small. The AWG–9 fire control system, by the Navy's own admission, cannot launch six Phoenix missiles at precisely the same time. What it can do is launch successive missiles at sufficient speed that six might be simultaneously in the air. And even this has never been demonstrated.

Moreover, a simultaneous multiple-shot capability is more a function of an aircraft's fire control system than a function of the missile itself. And AWG–10 contractor, Westinghouse, has already completed Navy-funded design studies of new F–4 fire control systems designed to accommodate the new Sparrow. One design would replace the present AWG–10 analog system with a more reliable digital version, the AWG–14. Another would simply give the present AWG–10 system a simultaneous multiple-shot capability.

Range and simultaneous shot capability aside, the advantages would lie with the Sparrow. It would be more maneuverable over its range. It would not have to be dropped into the ocean if a dogfight developed, but could be used in theory as a dogfight weapon. And it would cost only one-fourth as much, so we could afford to buy a few more.

The new Sparrow coud be carried on either of two planes. As indicated, there are new F–4 fire control systems which could handle it. And it is already earmarked for use on the F–15, which might well be adaptible for carrier use.

These, then, are clear alternatives to fleet air defense against the Soviets. I do not mean to endorse them. I have already made clear my basic feelings in this regard. But they are available and if we want an anti-Soviet fleet air defense system, we don't need the F–14 to get it. In fact, these alternatives have three clear cut advantages over the F–4, in addition to costing far less.

To the extent timing were considered critical, it should be noted that both the A–6/Phoenix and F–4/Sparrow alternatives could be deployed ahead of the present schedule for the F–14.

More important, if we were reasonable, these alternatives would give us an opportunity to conduct realistic operational tests of both the Phoenix and the new Sparrow before billions of dollars were committed on the missiles themselves or on any plane designed to use them. The F–14 alternative simply won't permit this, tied as it is to a hopelessly concurrent contract schedule. And I am convinced that realistic operational tests would only confirm what I have suggested here—that the Phoenix could be easily outmaneuvered and hopelessly countermeasured, while proving totally unreliable in the field. Nor am I very sanguine about the prospects of the new Sparrow. It was originally expected to enter production this year, but it has encountered sufficient disasters even in its artificial engineering test program to be kept in development for more debugging.

It is also certain to cost at least $100,000 per missile—much less than the Phoenix, but more than twice as much as the old Sparrow.

Most important of all, these alternatives would not rob us of the new air superiority fighter the Navy and our security may badly need. But that's my subject for next time. I'll try to prove in a few days that the F–14 costs the most yet has the poorest performance of all the fighter options that we have.

SENATE SPEECH BY MR. PROXMIRE ON THE F–14 (II)

Mr. President, a few days ago I said there were two basic questions which had to be answered in deciding whether to buy the F–14.

First, how reasonable is it to build an airplane, equip it with a terribly complicated and expensive air-to-air missile, and then stick it on an attack carrier to protect that carrier and its task force from the spectrum of threats the Soviets can throw against them?

Second, how reasonable is it to rely on that airplane, with all the performance compromises caused by carriage of that missile, as our next generation Navy fighter?

I tried to explain then why the Phoenix missile's fleet air defense mission makes little sense at all. What I want to show today is the fact that it makes even less sense to rely on the F–14 as our first-line Navy fighter of the future.

Here are a few reasons why:

Because a recent Pentagon study convincingly shows that the old F–4, modified only with leading edge slats, could outperform the F–14A at all speeds likely to be encountered in a dogfight;

Because it is almost certain that the F–14 would be no match for new Russian fighters which are likely to be produced over the next 5–10 years; and

Because the Navy could build at one-fourth the cost a new light fighter which could quickly put the F–14 to shame.

It is a basic, straightforward fact that the F–14 costs the most yet has the least performance of all the fighter options available to the Navy. Accordingly, our first priority is to start work now on a new light fighter development program for the Navy. If work were started this fall, new Navy prototypes could be ready for a fly-off in about two years. And in another two years the first production models would be ready for delivery to the fleet.

An equally important need is to scrap the F–14. The F–14 just can't hack it as a fighter. Therefore, there is no justification for keeping it going unless we want to buy a limited number of the planes—200 or so—for altogether different missions. But what missions?

Not Phoenix fleet air defense. The mission makes no sense and it could be performed by other aircraft anyway.

And we certainly don't need the F–14 for its interdiction bombing capability. We already have aircraft designed specifically for the interdiction mission which need escorts, not competitors, when they fly.

The third thing we should do is to put leading edge slats on a portion of the Navy's F–4 force. The cost would be minimal and it would give us a fighter better than the F–14A till the new Navy fighter came along.

These are the conclusions I hope to support today. Before they can be reached, three preliminary questions will have to be answered:

What is the role of Navy tactical air?

What is the Soviet fighter threat?

And just what capabilities do we want—and why—in a new Navy fighter of our own?

I. THE ROLE OF CARRIER-BASED TACTICAL AIR SUPPORT

I argued a few days ago that the growing vulnerability of our carriers justified a reduction to nine in our overall attack carrier force level. There are two other considerations which reinforce this point.

One is the relative cost of land-based and sea-based tactical air support. Not surprisingly, Navy analysis shows the cost of the two to be about equal, while Air Force analysis concludes that sea-based support is several times more expensive. Depth of service rivalry notwithstanding, such a large disparity can exist only because of the difficulty in determining which costs—particularly in the areas of support requirements, shared defense costs, airlift, and the like—should be included in costing each alternative.

Most neutral observers would agree, however, that an individual sea-based wing is about 50 percent more expensive than a land-based wing composed of the same aircraft. And Navy planes are themselves more expensive at the present time. The Air Force, for example, has had no tactical air counterparts to the Navy's EA–6B electronic countermeasures plane or its E–2C reconnaissance aircraft.

The second consideration is Air Force development of a "bare base kit" which allows it to set up operations within a few days on very primitive airfields, with nothing more than a runway, parking area, and a water supply of some kind. There are over 1,700 such airfields in non-communist countries throughout the world, with some in virtually every country. Thanks to the "bare base kit" the Air Force is now able to set up operations in many areas abroad more quickly than carriers can be moved there from the United States.

This is not to suggest for a moment that we should eliminate carriers altogether. I recognize that land-bases, even if offered, might be temporarily over-run. And unsheltered land-based aircraft have a vulnerability problem of their own, as demonstrated in Vietnam, where large numbers of such aircraft have been destroyed on the ground, while carrier-based aircraft have operated from a sanctuary granted by the North Vietnamese. Moreover, if we were to institute the changes in carrier defense alluded to in my earlier remarks, carriers would become more competitive with land-based aircraft from a cost standpoint as well.

My only point is that nine carriers would give us the mix between land-based and sea-based tactical air support which a wise allocation of resources seems to require. And it is about time that we thought more about this in sizing our tactical air forces. Unfortunately, the main consideration in Southeast Asia has been to see to it that Navy and Air Force interdiction strikes have been divided up 50–50.

However many attack carriers we decide to have, we will have to count on them to provide the full spectrum of offensive tactical air support missions—interdiction, air superiority, and close-air support.

To date, the Navy like the Air Force has given primary attention to the interdiction missions, notwithstanding the negligible results shown in Vietnam, Korea, and World War II. The A–6 and the A–7 are its primary aircraft for interdiction strikes, and the F–14 itself has been given a considerable air-to-surface capability, at great cost both in dollars and dogfighting performance.

And perhaps the best indication of the Navy's limited affection for close air support was provided in this year's hearings before the Senate Armed Services Committee. When asked what aircraft the Navy would be using for close support in the next few years, Admiral Connolly replied:

"Well to a very large degree we will use A–7's, and as long as we have A–4's we will use A–4's, and we have used F–4's when it was necessary. And the Marines will be using the Harrier. And I wouldn't be surprised under some circumstances that they will load the F–14 up because it covers a lot of real estate and can carry a big load of bombs and under certain circumstances it might turn out that the F–14 would do close air support."

Unfortunately, the A–4 is the only aircraft at all suited to close support in the Navy's inventory, and as Admiral Connolly indicated, it already is being phased out. Once it is gone, all the Navy itself will have for the mission in one interdiction aircraft and two fleet air defense fighters.

But air superiority is the subject today, and in many respects, the air superiority mission is more important than either close support or interdiction, since there is no way that either close support or interdiction aircraft can be made to influence land battles in progress unless we have air superiority in the first place.

The F–4 has been since 1961 and is now the air superiority fighter of the Navy, going through several different versions over the years. Originally developed by the Navy alone, it has been the front line fighter for the Air Force as well. But while Navy purchases ceased after fiscal year 1970, the Air Force bought some late-model F–4's last year and will do so again this year.

At present, the Navy has about two aircraft supporting the interdiction mission aboard its carriers for each F–4 fighter. In a relatively benign environment such as Vietnam, where we have encountered only a handful of Mig–21's, it is possible to live with this ratio. It would not be so, however, against a more numerous enemy fighter threat.

And our carriers can fully expect to counter such a threat, even if they are specifically ear-marked for wars not involving Soviet naval forces. The Soviets have long shown a willingness to make Mig–21's available to their allies. The new Mig–23, or Foxbat, is supporting the Egyptians, in small numbers, and we can expect large quantities of new air superiority fighters to be exported also in the next ten years, especially if the Soviets continue their traditional emphasis on light, highly maneuverable fighter designs.

This is a central fact which it is important to fully grasp. Due to their high costs and technical complexity, there is no way that the Soviets can make available to their allies the spectrum of sophisticated threats with which they themselves threaten our carriers, such as large numbers of submarines with cruise missiles and acoustic homing torpedoes. What they can give their allies is a limited number of patrol boats with Styx missiles, some diesel submarines and obsolete naval bombers, and a large number of cheap, high performance fighters. What we need to counter these items is a less complex and more reliable kind of carrier defense and some high performance fighters of our own.

Just what is the current status of the Russian threat these fighters will have to counter?

II. THE SOVIET FIGHTER THREAT

An in-depth discussion of the Soviet threat is not warranted here, but three important observations should be made.

First, the Soviets have done more work on the development of new fighter aircraft during the past twenty years than has the United States. As the Navy itself is fond of pointing out, albeit with some exaggeration (accomplished by counting as separate models all versions of each basic design):

The Soviets, since 1954 when the F–4 was designed, have flown 18 new models of modern-type fighter aircraft . . . The Soviet Union has concentrated on tactical aircraft specifically oriented for the air superiority role.

Second, the Soviets have approached the problem of new fighter design with a different design philosophy than the United States. As Air Force Secretary Seamans told the Senate Armed Services Committee in 1969:

"Since their appearance in the Korean War,

Soviet-designed fighters have generally been more maneuverable and have had better acceleration than U.S. fighters. Our fighters, on the other hand, have had better radiuses of action, firepower, avionics, and payload."

The Soviets, in other words, have steered clear for the most part from the kind of complex avionics and armament gear which has not worked for us in Southeast Asia and about which I will say more later. Their own fighters, freed from the weight and drag of this equipment, have emphasized the maneuverability required for aerial dogfights.

Their fighters have also cost far less. For example, the F–4 costs about three times as much as its most direct Soviet competitor, the Mig-21, based on direct comparisons of the cost of U.S. aircraft of comparable size and complexity. (I can't help noting that the $800,000 cost of a simple Mig-21 is the cost for only two of the six Phoenix missiles which would be carried by the F–14!).

Third, the fact remains that the Soviets have yet to develop a new tactical air-to-air fighter which is superior to the F–4. It appeared for a while that the new Foxbat, or Mig-23, might be such an aircraft, but it now seems clear that it is primarily a high altitude interceptor, rather than an air superiority fighter. As General Bellis, Air Force program manager for the F–15, told the Senate Armed Services Committee this year:

"The Foxbat, a high speed, high altitude aircraft, became operational with the Soviet air defense forces in 1970 and appears to have excellent capabilities as an interceptor or reconnaissance aircraft, but it has limited maneuverability and low dynamic pressure limit. Because of these limitations, the Foxbat does not represent an overwhelming tactical air combat threat, but does represent an impressive technological threat."

Calling the Foxbat "an impressive technical threat" is a nice way of saying that the Soviets can probably build a much better fighter. No doubt they can and will when they try. And a true successor to the Mig–21 is due any year now. It is important therefore that we design our own new generation of fighters not only to counter existing threats but to provide the greatest possible assurance that they will also be able to handle new Soviet aircraft we have not yet seen and probably will not see until a Domodedovo air show in the 1972–76 period.

III. THE MAIN INGREDIENTS OF AIR-TO-AIR SUCCESS

It would be possible to jump at this point directly to a discussion of the F–14's deficiencies as a fighter. I want to take the time first, however, to consider what basic performance features we need—and why—in *any* new fighters we hope to buy.

Too often we in Congress attempt to make decisions on important defense issues without asking basic questions of this kind. As a result, we get snowed under with statistical data and a variety of conflicting claims.

What I propose to do is to organize my discussion around six ingredients which are absolutely essential and two which matter far less to air-to-air combat success. To support my arguments I will rely wherever possible on concrete evidence from our actual experience in World War II, Korea, and Vietnam. The basic points are simple, and I'll do what I can do to keep technical details to a minimum.

(1) *Aircraft Maneuvering Performance.* The object of any aerial dogfight is to maneuver out of vulnerable positions and into positions suitable for weapons delivery.

Initially, fighters escorting attack aircraft over enemy territory are likely to be "bounced" by enemy aircraft from behind. (The term derives from the early days of aerial combat, when the air currents generated by closely approaching fighters actually caused the plane set upon to "bounce" in the air.) Accordingly, the first performance requirement for a fighter is sufficient hard turn capability to defeat such an enemy attack by maneuvering defensively out of the launch envelope of an enemy's missiles and guns. This capability is usually measured in terms of the number of "g's" the aircraft can pull while flying at dogfight speeds.

The next requirement is an ability to convert to an offensive position. What this requires is sufficient acceleration and turn capability to bring enemy aircraft into the effective launch envelopes of our own missiles and guns. Acceleration is determined essentially by the thrust of the engines and the weight and drag of the plane.

The speed at which these maneuvers take place is largely determined by the speed of the defender at the outset of the engagement. This is almost certain to be his cruise speed—the maximum sustainable with efficient use of fuel—and it is at best high subsonic even for today's supersonic aircraft. The attacking aircraft will want to be going somewhat faster, but his desired speed advantage will be limited both by the maximum closure rate at which he can still set up for weapons launch and by his recognition that the poor turning radius associated with excess speed could cause him to overshoot into a vulnerable position if the defender detected his attack and executed a successful defensive maneuver. The attacker will therefore want to maximize his own maneuvering capability in the low supersonic speed regime.

A real problem for today's fighters is the fact that hard maneuvers at these speeds produce drag which, together with the weight of the aircraft, forces them to lose speed and/or altitude. In our new fighters, improved maneuverability at dogfight speeds will have to be a prime requirement. From a design standpoint, it will be a function of adequate wing area and a thrust to weight ratio comfortably in excess of one. These features will be far more important than those required for a very high supersonic dash speed, which is seldom useful and which extracts its price in other areas.

Finally, it is important to recognize that the advent of the air-to-air missile has actually put a premium on these traditional maneuverability requirements. In the old days one aircraft could bounce another and if unsuccessful in its attack, turn on full power and accelerate away from the limited range of aircraft guns. This tactic is today preceded by heat-seeking missiles which can at times be outmaneuvered but cannot be out-run. If an enemy aircraft today lit its afterburner and tried to accelerate away in level or diving flight, it would increase its IR signature by a large order of magnitude and become a sitting duck for a Sidewinder type of missile.

Our first requirement, then, is an aircraft which can both out-run and out-accelerate the enemy at all speeds encountered during a dogfight.

(2) *Stability and handling qualities.* A closely related need is an aircraft with good stability and handling qualities, since these factors are a prime determinant of a plane's actual as opposed to theoretical maneuverability. If a plane lacks stability and good handling qualities a pilot will be inhibited from using the full maneuvering capability it has, and his timing will also be affected in all dogfight engagements.

Unfortunately, many of our current fighters—the F–8, F–100, and F–4, for example—have had deficiencies in this regard which have led to restrictions on the realism of peace-time training exercises in an effort to avoid accidents. Despite these restrictions we have already lost over 90 F–4's in non-combat accidents. The great majority of these accidents have been from loss-of-control type problems, primarily spins and stalls.

(3) *Detection and Acquisition.* A Rand Corporation study indicates that roughly 50 percent of all aerial victories in World War II were achieved against unaware defenders, a figure which has probably increased since due to the high speeds of modern jets. A third important requirement, therefore, is an aircraft which is hard to detect but has excellent acquisition capabilities of its own.

The problem of minimizing one's *own* detection is quite straight-forward. The key factors, in order of importance, are lack of smoke trail, small physical size, a small radar cross section, and a low infrared signature. One of the problems with our present F–4 is that it has double the size of a Mig–21 and a smoke trail which can be seen for many miles.

The most important factor in detecting *enemy* aircraft is good visibility out of the cockpit, particularly over the sides and to the rear. Also important are the presence of passive warning receivers on the plane and adequate use of ground-based radars.

Unfortunately, our own emphasis in recent years has been on complex and expensive high power-level radars in our planes themselves. It is worth spending a moment to see why this emphasis has been so unfortunate.

First, these airborne radars provide no protection against the most dangerous and difficult to detect enemy bounces, which are from under the sides or from the rear, since the radars sweep only in a narrow cone directly in front of the plane. This cone, it should be noted, is especially restricted for radars operating in a look-down mode. It is because of their narrow search patterns that these radars are no substitute for good visibility out of the cockpit with a pilot's unaided eyes.

Second, these airborne radars have the unfortunate effect of broadcasting the plane's position for hundreds of miles around, thus negating all the other design features aimed at minimizing its detectability. That is why an important distinction must be drawn, as far as mechanical aids are concerned, between passive warning receivers on the plane—which do not alert the enemy to its position—and airborne radars which do.

It is because radar detection devices actively warn the enemy of their presence that they should be largely confined to ground-based sites. The Navy, it should be noted, can and has easily obtained the shipboard radar coverage needed to position our fighters for offensive operations in each of our major theaters—Europe, Korea, and Southeast Asia.

The deficiencies of high power-level airborne radars have been amply demonstrated in Southeast Asia. Enemy pilots, directed from the ground, have been able to easily avoid their narrow search patterns and approach American fighters from behind. American pilots have been far too busy visually scanning their sides and rear to keep their eyes glued to their radar scopes. And they have often turned off their radars to avoid advertising their positions for hundreds of miles around.

One final point should also be noted. In addition to their other problems airborne fighter radars have proven extraordinarily unreliable from a purely mechanical point of view. All in all, they have contributed only a tiny fraction of all enemy fighter detections throughout the long duration of the war.

(4) *Reliable and lethal weapons.* For the past twenty years, proponents of the air-to-air missile have argued that maneuvering combat would soon be obsolete. Fighter pilots would see each other only on their airborne radars (!) and engage by missiles at long range, without closing for a dogfight.

I have just discussed some of the problems with airborne radar acquisition, and since I have also dealt with many of our missiles' deficiencies in evaluating the Phoenix, I will only summarize them here, as demonstrated in our Southeast Asia experience.

First, due to the large number of aircraft

over Vietnam and the impossibility of reliably separating enemy planes from Laotian airliners or Air Force planes not tied in on the Navy's communications system, few stand-off aerial battles have ever been fought.

Second, our missiles have never demonstrated the accuracy and reliability predicted by their manufacturers and first shown in artificial tests.

Third, enemy aircraft have been able to outmaneuver our missiles by hard turns at normal combat g's.

Fourth, missile performance has been substantially degraded by simple enemy countermeasures.

Fifth, radar missiles such as the Sparrow have greatly restricted aircraft maneuvering performance and positioning when employed, since it is necessary to set up and lock on to a target before launching them. In fact, the Sparrow had a minimum launch range so long our fighters often had to drop back to launch it after first closing for visual identification.

Sixth, radar missiles such as the Sparrow have suffered from the same defect as airborne radar detection systems—an enemy is alerted to their use and encouraged to use evasive tactics and countermeasures.

It is simply incredible how much money we have wasted on almost totally useless air-to-air missiles. We have invested over $2 billion to date on the Sparrow, which has missed its performance predictions by a factor of ten, and almost as much on the complex infrared Falcon.

Yet Pentagon studies of our Southeast Asia experience convincingly show that aircraft guns are still the most effective weapon against enemy fighters. Only one of our earliest and simplest missiles, the infrared AIM–9D Sidewinder, has shown a roughly comparable performance, at a cost of $15,000 per missile. The much more complex radar Sparrow, at $40,000 per shot, has been about one-third as effective as the Sidewinder at almost three times the price. The Sparrow has been one-quarter as effective as fighter planes' cannons or guns; while costing 200 times as much per firing or 800 times as much per kill!

Admiral Connolly himself was quite candid about the state of our air-to-air missile arsenal in testimony this year to the Senate Armed Services Committee:

"It is one of my chief worries. It seems to be easier to go to the moon than it is to get a good air-to-air missile, and this is one of the weaknesses of our situation in U.S. forces—has for a long time. The best missile we have is still the latest version of the Sidewinder."

There can be no doubt, then, that aircraft cannons or guns and the infrared Sidewinder remain at this time the most—in fact the only—lethal and reliable weapons in our fighter arsenal. Moreover, our fascination with more complicated weaponry has prevented us from taking full advantage of their own potential for improvement.

(5) *Force Structure Implications.* However good our fighters, they must be available in sufficient numbers to deny the enemy a significant numerical superiority in combat situations. We could use such an advantage ourselves, both to saturate enemy defenses and to replace losses suffered. Accordingly, even with budgetary conditions far less stringent than those existing today, cost would have to be seriously considered in evaluating our fighter options.

A related consideration is the number of combat sorties each option would actually deliver. Historically, highly complex and sophisticated aircraft have not only cost more to maintain and repair, but have also not been usable much of the time. It is a simple point, too often neglected, that an aircraft will do us no good in time of battle unless it is flying regularly.

(6) *Pilot Skill.* No discussion of the main requirements of air-to-air success would be complete without a reference to this final factor. Unless our pilots are trained in peacetime to be highly proficient in the complicated tactics made necessary by changes in the technological aspects of aerial combat, no amount of technological superiority in our aircraft themselves will bring victory.

Unfortunately, we have historically given our pilots short shrift, preferring to spend money on new and complex equipment rather than investing in adequate pilot skill. Due to its insistence on expensive procurement programs in the face of the continuing budget pinch, the Navy has cut flying hours in its training programs for the past three years while continuing to invest heavily in airframe and electronics hardware.

Maneuverability, stability and handling qualities, detection and acquisition, reliable and lethal weapons, force structure implications, and pilot skill—these are the main determinants of air-to-air success.

I would like to talk for a moment now about two other factors, the lesser importance of which it is also essential to establish.

(1) *Payload/Range.* An aircraft's payload and range potentials are obviously interrelated, since one can trade off the one for the other by varying the mix of fuel and ordnance carried.

As far as fighters are concerned, payload is much less important than range. That we have traditionally given our fighters significant air-to-surface capabilities is just another indication of the continuing fascination of the Navy and the Air Force with multi-mission aircraft and the interdiction mission. Both services, however, already have aircraft designed for this mission which need escorts, not competitors, when they fly.

Range is a more legitimate concern. But since excessive internal fuel requirements have a powerful effect in degrading the weight and the performance capabilities of air superiority fighters, it is important that our fighters be designed only with the range and combat fuel actually needed for combat operations. What they will need is sufficient range to escort attack aircraft on their missions or to provide decently sustained loiter over a battlefield.

(2) *All-Weather Avionics Systems.* Bad weather fighting is one of the most misunderstood aspects of the whole dogfighting issue. It is assumed at times that special avionics systems have now been invented which give our fighters the capability to operate in bad weather as easily as in broad daylight. Unfortunately, this just isn't so, and a few words are necessary to put the problem in perspective.

In theory, there are two contingencies for which night and bad weather avionics systems in our air superiority fighters might be useful.

First, we might want them to permit fighter escorts of our own interdiction aircraft—Navy A–6's and Air Force F–111's—on their night bombing missions. Actually, our night and all-weather radar equipped F–4's have never performed a single such escort in Vietnam. They have not shot down a single Mig–21 at night or in bad weather during the entire duration of our involvement in Southeast Asia!

The reasons are simple. It is hard to hold formation in the dark to begin with and if one of our fighters were ever bounced by the enemy, it would be virtually impossible for him to join up again after the encounter. It must be recognized in this regard that the problem of identifying radar acquired aircraft is even more difficult at night than in the day, because closing for visual identification is so much tougher. As a matter of fact, one of the arguments the Navy makes for night interdiction missions is their low cost, precisely because they require no escorts.

Second, we might more rationally want all-weather avionics systems to defend against enemy all-weather attacks with their interdiction forces on battlefield areas where our own forces are engaged. But there are several points to be noted here.

To start out with, the Soviets have never developed a tactical all weather attack capability. Since the few light tactical Beagle and Brewer bombers turned out in the late 1950's, they have not developed a single all-weather interdiction aircraft, and their Mig–21 fighters have no all-weather attack capability either. Under the circumstances, Soviet allies cannot be expected to have such a capability of their own.

Moreover, our own experience with all-weather avionics systems on our attack aircraft demonstrates that they simply do not provide the pinpoint accuracy needed against battlefield targets and are therefore limited to relatively ineffective use against fixed economic and strategic targets.

Finally, it is doubtful whether all-weather fighters could handle all-weather equipped attack aircraft in any event without considerable reliance on more traditional ground-based help. The friend or foe identification problem would be extremely serious over a battlefield at night. Moreover, the fighters would be at an initial disadvantage for acquisition purposes. While the attack aircraft would be homing in on fixed land-based targets, the fighter radars, with their narrow effective cones, would be searching the skies for targets.

All-weather avionics systems, then, are not needed on our fighters for the escort and battlefield protection missions just discussed. The only time they would really be useful is if the fighter were operating in a pure interceptor role, e.g., protecting a carrier from enemy attack. But the only nation which has an all-weather equipped heavy naval bomber force capable of even modest-sized attacks against our carriers is the Soviet Union, and I have already explained why we should not employ our carriers when Soviet naval forces are involved—even in good weather and broad daylight. Other nations will not have an all-weather equipped anti-carrier force to worry about. Their tactical bombers or fighters will have no such avionics, and their heavy bomber force will be either small and of World War II vintage or altogether nonexistent.

One final point should also be noted. As proven by our extensive World War II experience (long before the days of sophisticated all-weather avionics). Even clear night and marginal daylight weather operations require airframe and performance requirements quite different from those necessary for visual combat. They emphasize stalking skills rather than the violent maneuvers of aerial dogfights and require sufficient endurance, acceleration, and speed to overtake attack aircraft, but little maneuverability. Accordingly, if we wanted an all-weather fighter capability in a fraction of our force, existing airframes would suffice for the purpose—if we could develop avionics systems which worked well enough to justify their cost. The most important point is not to let the limited utility of such a capability serve as a justification for imposing weight and other design penalties which could comprise the performance actually attainable in a new air superiority fighter. Otherwise, the effect of our attempt to fight at night and in bad weather will be to give the enemy the day.

IV. A RATING OF THE F–14

This analysis of air-to-air combat will make it a lot easier to show why the F–14 is such an incredibly poor fighter candidate for the Navy. What I propose to do is to run through each of the items I have just discussed and to see how the F–14 measures up.

(1) *Maneuverability.* Due to its small wing area and the many weight compromises associated with its complex avionics, its Sparrow

and Phoenix missile carrying capability, and its large air-to-surface potential, the 54,000 pound F–14 will have dangerously low maneuverability. A few statistical comparisons will serve to make the point.

It has always been recognized that the F–14 would have a relatively poor hard-turn capability at dogfight speeds, less than a Mig–21 by a substantial margin. Moreover, its acceleration potential has been greatly dependent on successful development of the "B" engine, with its much better thrust rating than the "A". As Admiral Connolly recently told the Senate Armed Services Committee:

"The performance gap [between the two engines] is in acceleration, rate of climb, and service ceiling, not in top speed. It will affect that maneuverability because the B engine is going to have ability to send that plane straight up. This is a tactical realm that we have not yet worked in but I think the Air Force and Navy both are going to have spectacular possibilities opened up to them with the F–15 and F–14 having thrust to weight ratios that are about one or better to one."

Since Admiral Connolly spoke, the B engine production contract has been broken and the engine itself shelved, at least for the next two years and another 96 aircraft. What the Navy is left with is an aircraft which does not measure up well at all where maneuverability is concerned.

The Air Force F–15 will have about a 40 percent advantage over the F–14A in acceleration and at least a 60 percent better hard turn capability at dogfight speeds!

In fact, a recent Pentagon study convincingly shows that the old F–4, modified only with leading edge slats, could itself outmaneuver the F–14A! With these inexpensive slats, which could be deflected to improve turning performance and retracted to prevent drag during acceleration and climb, the F–4 would be able to both outturn and out-accelerate the F–14A by as much as 10 percent for the most suitably equipped F–4 models. This is admittedly a small margin, but it is of devastating significance when we are thinking about replacing the F–4 with F–14's costing more than three times as much per plane!

It could prove equally devastating, in another way, if we relied on the F–14 as our front-line Navy fighter against Soviet Mig-21 successors which the F–4 itself won't be able to handle.

(2) *Stability and Handling Qualities.* The poor maneuverability of the F–14 will be further compromised, moreover, by its poor stability and handling qualities.

The Flat Spin Problem. As pointed out by NASA's Langley Research Center almost a year and one-half ago, the F–14 is likely to be very susceptible to flat spins and probably unable to recover from them.

What happens, in essence, when an aircraft enters a spin is that control of the aircraft is lost during hard maneuvers and it spins downward. For most aircraft, such spins can be corrected by proper control actions and the aircraft can be saved, given sufficient altitude. There are two reasons, however, why recovery from spins may well be impossible for the F–14.

First, when it enters a spin, it might easily suffer a complete loss of engine power (or flameout), due to irregularities in the air flow entering the engines. Fan-jet engines, like the F–14's, are particularly sensitive to air flow irregularities. In fact, previous versions of the engine actually used on the F–14A have experienced serious flameout problems in use on the F–111.

An aggravating factor is the F–14's variable sweep wing design, since if engine power is lost there is no power to move the wings. The wing area of the F–14 is so small it might be impossible to land the plane at any time engine power was lost. This would certainly be the case if the wings were not in an optimum recovery position at the time the flameout occurred.

The Navy is already at work designing sensors to warn F–14 pilots of impending spins, but there is no real solution to the problem. A spin recovery chute has been rejected because it would have a terrible impact on aircraft size and weight. Design changes to lengthen the fuselage and increase the vertical tail would have the same effect and still might not be successful.

The Directional Stability Problem. NASA and Grumann wind tunnel tests also indicate that the F–14 will have serious directional stability problems at transonic speeds and above. The Navy presently hopes to solve them with a stability augmentation system it is working on, but major design changes may be needed. These changes would involve increases in the size of either the vertical tail or ventral areas.

Unfortunately, these changes would increase weight and drag and further degrade maneuvering performance. They could also make it completely impossible for the F–14 to land on a carrier with a full ordnance load. The Navy will therefore undertake these changes only if they are essential, but it is already arguing with Grumann over who might have to bear their costs. The Navy claims the directional stability problem is a deficiency which Grumann would have to rectify, while Grumann claims that any modifications would be new work for which an Engineering Change Proposal and adjustment of contract prices would be needed.

Anyway you look at it, the F–14 will have stability and handling problems to complement its already limited maneuverability, problems which will severely limit the realism of peacetime training exercises with the plane. Just how bad these problems will be it is still too early to say. But as I noted earlier, over 90 F–4's have already been lost in non-combat crashes, primarily in loss of control type accidents. And all indications to date say that the F–14 will have significantly worse handling qualities.

(3) *Detection and Acquisition.* In this area, the F–14 would have two relative improvements over the F–4—its relatively smokeless engines and its improved visibility out of the cockpit. At the same time, its large physical size would significantly increase its own susceptibility to detection, even when its airborne radar has been turned off.

(4) *Weapons.* For armament, the F–14 relies primarily on the Sparrow and Phoenix missiles, with all their attendant problems. A gun and Sidewinder capability will be present, but relegated to a secondary role, primarily because the F–14's limited maneuverability will make it difficult to employ these weapons.

It is important to note that while efforts are being made to solve our air-to-air missile problems, no clear solution is yet in sight. All indications are that the Phoenix will have even worse problems than the old Sparrow, and the new Sparrow—twice as expensive as the old—has had a disastrous test record to date which has kept it in development for more debugging.

I must admit, in all candor, that I have grave doubts whether some of the problems we have experienced will ever be solved.

I see no foolproof way of solving the friend and foe identification problem under conditions of stand-off launch.

I see no solution to the problem of countermeasures susceptibility.

And I also fear that future improvements in aircraft maneuvering performance may outdistance any improvements in the maneuverability of our air-to-air missiles. Since the airplane will always have the choice of what to do next, the time lag will always work against the missile. And since the missile will be going much faster than the plane, it will have to pull more g's to adjust, more than its own small wings may well allow.

In any event, it seems both wasteful and militarily dangerous to invest large sums in relatively unmaneuverable airframes which will be highly ineffective unless and until these armament problems are solved. We have really been putting the cart before the horse too long.

(5) *Force Structure Implications.* At a minimum of $16 million per copy, the F–14 has terrifying force structure implications. There is simply no way it could ever replace the F–4's now in our inventory on anything like a one-to-one basis. And the effects of its high investment costs would only be heightened when operating costs equal to them were tacked on every five years. Finally, the great complexity of the aircraft and its major components would maximize its time under repair.

(6) *Pilots.* Because the F–14 measures up so poorly against the five main technological requirements for air-to-air success, pilots have been understandably cool in their reactions to it. "Buy Mig–21's," one Navy pilot is said to have shouted at a meeting devoted to selling the F–14.

One of the reasons for the F–14's low performance and high cost is it emphasis on design features not essential to the air superiority mission. I have no quarrel with its range, which will be better than a 30 percent improvement over the F–4. But there is no justification for its large air-to-surface capability. And it is chocked full of all-weather avionics systems.

The F–14, then, is simply not the answer to the Navy's fighter needs. It indisputably costs the most, yet offers the least, of all the options available. But just what should the Navy do?

V. THE NEW LIGHT FIGHTER ALTERNATIVE

Despite the fact that it was already developing a sophisticated front-line fighter much superior to the F–14, the Air Force recently initiated a new light fighter prototype program.

The need for such a highly maneuverable light fighter has long been recognized in a variety of circles. It has been no secret that the Russians have found their $800,000 Mig–21's a suitable counter to F–4's costing and weighing three times as much. And the French have been selling for less than $1.5 million a Mirage fighter which has delighted the Israelis, who have used the larger payload of the F–4 mainly on bombing missions.

Dissident voices have therefore been raised—by civilian critics, by F–4 pilots returning from Vietnam, and by top American fighter plane designers, such as Lockheed's C. L. "Kelly" Johnson. I ask unanimous consent to insert in the RECORD at this point the summary of an interview with Johnson which appeared in Aerospace Daily on January 7th of this year:

LOCKHEED'S KELLY JOHNSON DEPLORES SHRINKING U.S. FIGHTER STRENGTH

Cost of new fighters such as the F–14 and F–15 is so high that it is cutting down the number of fighters the U.S. would need in a major air war, according to C. L. (Kelly) Johnson, head of Lockheed's Advanced Development Projects office.

"The problem of numbers is a very fundamental one," Johnson said in a recent interview. The lesson is clear from Southeast Asia, but doing something about it will be difficult, since costs of new fighters are now up to $8–$14 million apiece, Johnson indicated.

And while numbers of U.S. fighters are declining, the Soviet Union keeps in operation about 6,000 fighters, "not counting the ones they give away," Johnson said.

Furthermore, the Soviet fighters are designed from the ground up to have the advantage over U.S. fighters. They have only half the range, armament and electronic gear, but double the wing area. This allows

them to out-maneuver current U.S. fighters in many instances, Johnson said.

Johnson—designer of the P–38, P–80, F–94, F–104, and F–12—also feels the U.S. does not have enough types of fighters. "I'm not an exponent for the carpenter who has only one tool in his tool box," he said.

Johnson also feels that the idea of intentionally giving the opponent the "high ground" in an aerial battle is bad tactics. He says new fighters must have capability for great increase in speed to take the high ground.

In addition, the idea of "just being able to shoot a missile (from a U.S. fighter to hit a high-flying enemy fighter) will not be sufficient," Johnson said. "It hasn't been in the past."

The veteran fighter designer also challenged the theory that two engines are better than one for a fighter. "In time of war, twins are not safer than singles," he said. With twin-engine P–38s, the Army Air Force found it had "twice the chance of having an engine shot out and one half the chance of getting home after it was," he said. "When a P–38 engine was shot out, the plane was downed (by enemy fire) because it was moving so slowly."

Johnson had just submitted to the Air Force an unsolicited proposal for a high-wing, low horizontal tail modification of his F–104 Starfighter. He offered to build two prototypes of the new lightweight fighter—the X–27—for $35 million and to have them in the air within a year. The X–27, he told the Air Force, would be able to better the performance of the F–14, and he would design it so that it could be produced at one-third the cost.

Other unsolicited proposals were submitted shortly thereafter, and out of them grew the Air Force prototype program, now pointed toward the development of brand new fighter designs.

Until the Air Force took this initiative, it was well recognized in knowledgeable circles that new fighters superior to the F–14 could be designed at much better prices at the expense only of some dubious avionics and missile gear. But Pentagon officials usually refused to admit this basic fact.

Indicative of the situation is the following exchange between the distinguished Senator from Nevada (Mr. Cannon) and Admiral Connolly during hearings this year before the Tactical Air Subcommittee of Senate Armed Services:

Senator CANNON. Do you see any need for a high performance day fighter for the Navy, presumably a low-cost fighter, in the future?

Admiral CONNOLLY. I don't want to be facetious but I haven't seen a low-cost airplane for an awful long time.

Equally representative is the following statement by the Senator from Nevada (Mr. CANNON) during Senate floor debate on the F–14 in 1969:

"Let me make this point very clear. The Navy experts have stated that if they designed an aircraft exclusively for air superiority without considering any other mission it would weigh only 600 pounds less than the present F–14 . . . . I certainly am not attempting to convince any member of the Senate that the F–14 is a cheap aircraft. It is not . . . . Unfortunately, we cannot go down to the local dime store and procure complicated weapon systems containing the highest sophistication."

The Air Force light fighter prototype program has now let the cat out of the bag. We don't have to go down to the local dime store. American designers can themselves give us first-rate fighters at prices competitive on the world market!

Admittedly, these fighters exist right now only on the drawing boards. There is every reason to believe, however, that when development work is finished, the Air Force will have fighter prototypes which score very well in all basic requirements for air-to-air success.

Their maneuvering capability will probably put the F–14 to shame. In all likelihood, they will show both acceleration and turning performance 80–100 percent better than the F–14A. In fact, they will probably be the first aircraft actually capable of executing dogfight maneuvers at supersonic speeds.

They should be able to achieve this dramatic performance by rigorously eliminating all weight not essential to the mission of shooting down enemy aircraft and then replacing a small fraction of this weight with more wing area and more engine. They will probably weigh about 15,000–20,000 pounds—25,000–30,000 pounds, not 600—less than the F–14.

Because they will be smaller physically than a Mig-21 and also have smokeless engines, they should be very difficult to detect. They will have good cockpit visibility, too, and they will carry no airborne radars when they fly.

For armament, they will forego the Phoenix and the Sparrow for the only reliable systems we have developed thus far—guns and the simple Sidewinder. At the same time, they will have the growth capability to carry more advanced passive missiles such as the Agile.

Even if they came in at about double the $2.5 million per copy now expected if they are produced in quantity, they would still have about a 3 or 4 to 1 cost advantage over the F–14. In fact, their cost advantage in terms of sorties deliverable in combat could rise as high as 8 to 10 when their probable low maintenance times are considered.

Their range will be a significant improvement over the F–4, and it could exceed that of the F–14 under maneuvering combat conditions. Finally, they will have only a modest air-to-surface capability and no complex all-weather avionics, at least in the standard version.

All in all, they are likely to be just what many of our pilots have long wanted to match the new Soviet fighters likely to be turned out during the next 5–10 years.

The Air Force is to be congratulated for undertaking this new fighter prototype program as a possible complement to the F–15. What is even more urgent is that the Navy undertake a similar program of its own.

Light high performance fighters would obviously be ideal for carrier use. Their small size would permit a spotting factor of less than one, i.e., it would be possible to accommodate about twice as many light fighters as F–14's in the same deck space. The slow takeoff and landing speeds permitted by their generous wing area and thrust would make them better suited to carrier takeoffs and landings than any current Navy fighters. And they would greatly alleviate the current inability of carriers to accommodate sufficient maintenance personnel to maintain today's complex first line aircraft.

In fact, if the Navy failed to undertake a prototype program to meet its own requirements, the Air Force prototypes could prove eminently adaptable to Navy use.

VI. CONCLUSIONS AND RECOMMENDATIONS

(1) Our single most important need is to start work now on a new light fighter development program for the Navy. The F–14 simply will not give us the new air superiority fighter our national security requires. It would almost certainly be no match for a new Russian fighter. And it could be put to shame by a new light Navy fighter or our own.

We could simply wait and hand the Navy an Air Force developed plane, but it would be better if we did not. A Navy program could give special emphasis to such things as spotting factor constraints and the rigors of carrier landings. Moreover, a second competitive prototype program at this time would give more design teams a chance to maintain and refurbish their languishing design skills. A second program would also provide insurance against not finding as superior a fighter as possible in the Air Force competition. And at a cost of less than $50 million for each of the two contractors in the Navy flyoff, we could well afford these benefits.

If work were started this fall, the new Navy prototype could be ready for a flyoff in about two years. Another two years would probably then be required to make a final selection, initiate production, and make first deliveries to the fleet. This schedule would result in an initial operating capability date for a new light fighter in late 1975, little more than a year after the F–14 IOC date currently contemplated.

(2) An almost equally important need is to scrap the F–14. The F–14 simply cannot hack it as a fighter, so there is no justification for keeping the program going unless we wanted to buy a limited number of planes—perhaps 200 or so—for altogether different missions. But what missions?

Phoenix missile fleet air defense against the Soviet naval threat makes no sense at all. The Phoenix probably couldn't cope with the massed bomber attacks it was originally designed to meet, let alone the Soviet submarine-launched cruise missile and torpedo threat which has been growing in recent years. And if we insisted on wasting money on the fleet air defense mission, we could get by wasting less if we put the Phoenix on the A–6 or the new Sparrow on a modified F–4. Either of these combinations might do every bit as good as the F–14/Phoenix combination.

We certainly don't need the F–14 for its air-to-surface capability. We already have aircraft designed specifically for the interdiction mission, and as I said earlier, they need escorts, not competitors, when they fly.

The F–14 can't be justified either for its night and all-weather capability. It is more reliable avionics, not new high cost airframes, which we need if we want to perform this mission.

(3) Also required, but far less urgent, are improvements in what our F–4's can do. Actually, there is only one option which deserves a go-ahead at this time.

We can and should put leading edge slats on a portion of the Navy's F–4 force. The cost would be minimal and it would give us a fighter superior, in fact, to the F–14A till the new light fighter came along. If we bought new planes in preference to modifying existing F–4J's, a carrier-capable version of the slats-equipped F–4EF now being sold to the Germans would probably be our best buy. The F–4EF has been stripped of the AWG–10 fire control system already on the F–4J and itself relies not on the Sparrow but on guns and the Sidewinder as its primary armaments. It would be lighter, more maneuverable, and almost $2 million less expensive than any other model we could buy.

Additional F–4 modifications could also be considered—new fire control systems to launch the new Sparrow in the fleet air defense role, or better all-weather avionics. But the least we could do, if we took this route, would be to rigorously test all new systems involved before we went and stuck them on the planes.

(4) Finally, there is nothing wrong with low priority studies of the F–15 as a possible Navy aircraft. I fully recognize that it is a better fighter than the F–14 itself. At the same time, there is little it could add to the capabilities of a new Navy light fighter and modified F–4's working in combination. And a carrier suitable F–15 might turn out to be difficult to build and virtually as expensive as the F–14 has become.

Mr. President, the F–14 program is in many respects a microcosm of many of the problems which plague our defense establishment today:

Initial cost estimates which later balloon;
The incredible inertia of ten year old ideas which have never been thought through;
The failure to test new systems before they have been deployed; and
The continued emphasis on multi-mission aircraft which do no mission well.

We won't solve all these problems just by instituting the recommendations set forth here. But we will have made a pretty decent start.

Mr. STENNIS. Mr. President, I yield 2 minutes to the Senator from Texas.

Mr. TOWER. Mr. President, it has been said that the Soviet Mig–21 aircraft is superior to the F–14A. The record should be made clear that there is nothing to support that contention. All analyses to date, which includes an assessment by NASA, conclusively indicates that the F–14 is superior to the known and projected Soviet dogfighter aircraft. If we were to project faster and more maneuverable air-to-air fighters by the Soviet Union, they would be short-legged aircraft, and if a carrier is to be vulnerable to this type aircraft it has to operate pretty close to Soviet air bases because these aircraft cannot be deployed over long distances.

Something was said about the vulnerability of aircraft carriers. We have nothing to prove anything about the vulnerability of aircraft carriers. In World War II carriers were pretty hard to kill, and they were subject to attack by the first guided missile in warfare, the kamikaze.

The PRESIDING OFFICER. The time of the Senator has expired.

Mr. STENNIS. I yield 1 additional minute to the Senator from Texas.

Mr. TOWER. I had experience in World War II of seeing kamikazes engage American ships in battle and saw ships taking as many as five of them with the same kind of explosive capability Soviet warheads have, and these ships did not sink. As a matter of fact, we decimated the attackers. It has been contended that a carrier force would be vulnerable to mass attack. The argument falls of its own weight because they do not now have that capability.

Mrs. SMITH. Mr. President, the security of this Nation, and our preservation of the freedom of the seas, depends not only on a meaningful and firm foreign policy, but also on modern weaponry. The F–14 aircraft is an essential element of our Navy modernization program, and it has my enthusiastic support.

I shall vote against this amendment and I urge my colleagues to do likewise.

Mr. BUCKLEY. Mr. President, it has been noted, both in this Chamber and in the professional literature, that the branch of our Armed Forces which is in the most severe need of modernization is the Navy.

While considerable attention has been focused upon the overaged and outmoded character of many of the vessels upon which the Navy must rely to carry out the tasks assigned to it, less attention has been given to the aircraft the Navy must employ for the roles of air superiority, fleet defense, and the escorting of Navy strike aircraft. The backbone of the fleet's air strength is the F–4 Phantom jet fighter-bomber. To get some idea of the vintage of the F–4's technology, it should be remembered that the man who is now the Chairman of the Joint Chiefs of Staff, Admiral Moorer, sat on the F–4 Evaluation Board in 1955. I would be among the last to argue that merely because something is new, it is necessarily better than something that is older. However, one cannot help noting that there have been some significant advances in areospace technology in the past 16 years that suggest that we need something better than the 1955-vintage F–4.

The next question that arises then is, To what extent is a technologically superior aircraft necessary? To answer that question, one must examine the nature of the threat facing U.S. naval aircraft in roles which they must perform.

I can think of no area of the world that better illustrates the critical need for the early availability of advanced U.S. naval aircraft than the Middle East. As is generally accepted, the primary threat to the peace in the Middle East is the massive support which the Soviet Union is providing Israel's Arab neighbors in pursuit or their long-term goal of achieving hegemony over this vital region. There are two key elements which have combined to impede the Soviet's imperial ambitions. The first has been the ability of the United States to supply technologically superior military aircraft to Israel; the second has been the local superiority of the 6th Fleet in the eastern Mediterranean.

Because of the geography of the area, the Russians do not need to match us aircraft carrier for aircraft carrier in their attempt to neutralize the deterrent capacity of the 6th Fleet. She has therefore focused her efforts on building cheap missile-launching patrol craft, and other vessels designed to inhibit the ability of U.S. naval forces to control the seas in their region of operations. The Soviets have now deployed in the Mediterranean a formidable fleet of surface combatants armed with cruise missiles having a 100- to 400-mile range capability. To defend itself against this threat, the 6th Fleet requires an aircraft superior to the Phantom.

In the Middle East, the problem for the 6th Fleet is compounded by the fact that over the past few years, the Soviet Union has been able to establish a lavish base structure along the Southern Mediterranean coast in Egypt, Libya, and Algeria. Therefore, the Soviet Union is able to base her advanced aircraft such as the Foxbat or Mig–23 in areas where they pose a direct threat to the 6th Fleet. Thus, in addition to defending the fleet against long-range missiles, naval aircraft must be capable of maintaining local air superiority; that is to say, they must have the ability to successfully engage the advanced fighter aircraft which the Soviet Union is now producing and deploying in significant numbers.

Finally, there is a third mission which naval aircraft must be required to perform and that is the strike escort mission. If the day ever comes when 6th Fleet aircraft are required to be used in offensive strikes, its carrier based fighters will be called upon to escort bombers to their targets. This means they must be able to travel the long distances required, to evade or destroy the 2,000 antiaircraft guns and missiles which the Soviet Union has deployed in the area, and to defend the strike aircraft against attacks by hostile enemy fighters.

The inability of our own aircraft to perform any of these objectives, or a perception by the Soviet Union that the U.S. Naval forces in the Mediterranean are not capable of performing any of these missions, could have catastrophic consequences for the cause of peace in the region—a region where President Nixon believes there is the greatest risk of a third world war. We simply cannot afford to jeopardize our foreign policy objectives in the Middle East by failing to provide our forces with the equipment to do the job.

The question remaining then is, Can the F–4 Phantom perform the tasks assigned to it in view of the threat it is exposed to; and if it cannot, will the F–14 proposed as its replacement be capable of doing it? Based upon the evidence available including studies by the Department of Defense, and the hearings before the Senate Armed Services Committee, there seems to be little doubt that there is no plausible set of modifications that can be made to the F– 4 that will make it capable of performing all of the tasks which it must perform in a hostile environment such as is found in the Middle East. While it has been suggested that this or that modification will improve the ability of the F–4 to carry out any one of its major missions, there is no evidence that the entire aircraft can be so modified that it could perform every task assigned to it. In these days of careful scrutiny of ever-tightening budgets, no one deserves to expend resources for national defense carelessly—not the President, nor Congress, nor the Department of Defense, because the careless expenditure of resources means less rather than more defense. But we cannot afford to fail to provide our forces with the required level of modernization merely because some better alternative may become available years down the road. A political crisis where a genuine military capability would be required cannot be postponed until the ideal aircraft is produced, we must be well prepared at all times.

All the evidence available points to the fact that the F–14 is the best aircraft we can provide the Navy with in time to provide the kind of military capability we require. The Navy has suffered from the effects of having the ill-fated F–111B delaying the modernization of Naval aircraft, so the early deployment of an aircraft of greater overall combat potential than the F–4 is an urgent necessity. The F–14 is the only aircraft which could be deployed within a short time. Failure to deploy the F–14 could be tragically short sighted in the short run if the U.S. Naval forces were found wanting when they were required; and in the long run would be much more costly in an economic sense if we were required to initiate a crash program to modernize the Navy's aircraft under the pressure of a political crisis.

Until a convincing case is made for an alternative to the F–14 which can meet the performance specifications required within the time period prescribed, the Senate must support the Armed Services Committee's recommendation of continued funding for the development and production of the F–14.

Mr. STENNIS. Mr. President, how much time is remaining?

The PRESIDING OFFICER. Both sides have 5 minutes remaining.

Mr. STENNIS. Mr. President, I yield that 5 minutes to the Senator from Nevada.

Mr. CANNON. Mr. President, I wish to correct the Senator from Indiana on one statement, when he commented earlier that the F–15 could be procured for about $3 million a copy. I am sure he did not mean that, and if he did, his facts are incorrect, as are some other facts he stated. The program unit cost is $9.7 million for the F–15. I want to set the record correct in that regard.

Mr. President, there has been some discussion during our recent debates on the Authorization bill of the supposed advantages of developing a small, cheap, effective lightweight fighter as a substitute for the F–14. Today, I would like to address some of the pros and cons of the lightweight fighter concept as a potential operational weapons system. I believe the facts will show that the lightweight fighter is no panacea and most certainly is not the total answer to our country's fighter needs of the future.

As a point of departure, I would like to describe what kind of an airplane currently is envisioned under the term "lightweight fighter," and then I will give some examples of the operational problem areas that such a fighter might have. In closing I will give a specific example of operating experience with one of our own lightweight fighters.

Deputy Secretary of Defense Packard briefed the Senate Armed Services Committee earlier this month on his new approach to development through the use of prototyping. One of the particular programs that is being considered as a candidate for this prototyping by the Air Force is what they call a lightweight fighter. The tentative plans for this particular program would be for two aircraft companies to build two prototypes apiece, and the resulting test aircraft could be used to evaluate advanced technology of high performance airplanes.

Conceptually, the class of airplane currently envisioned has a takeoff weight of about 20,000 pounds. It will have a single engine, using the engine being developed for the F–15. This will give it a thrust to weight ratio of better than one at takeoff—which means the plane will have outstanding acceleration and rate of climb. It also will have a relatively low wing loading—which means it will have good turning maneuverability for dogfighting. Proponents of building operational airplanes of this class point out, correctly, that they would have the kind of performance capability needed for a good close-range dogfight airplane.

In many ways, this design concept for a lightweight fighter that I have just described can be considered to be the Air Force F–15 cut in half. Let me expand on what I mean. The F–15 has a takeoff weight of about 40,000 pounds, double that of the lightweight fighter. The F–15 has two engines. The F–15 has a relatively low wing loading. Thus the thrust to weight ratio of the F–15 and also the wing loading are about the same as the proposed lightweight fighter. The performance of the two airplanes in dogfights should be the same.

If this is true, the advocates of the smaller airplane argue, then why not buy the lightweight fighter since presumably it only will cost half as much? Half the weight and one engine versus two certainly indicates half the cost. The answer to that question lies in the comparative range and useful payload that the two classes of airplanes will have.

FIGHTER ARMAMENT

The armament that the smaller airplane can carry is limited to an internal gun plus two Sidewinder closein dogfight missiles. This is a fact of life dictated by the very limited dimensional size of the airplane.

The lightweight airplane cannot carry a search radar with any appreciable range coverage to warn it of approaching enemy aircraft. It certainly cannot carry an avionics system with a lookdown and shootdown capability against fighter targets masked by the clutter of the ground on conventional radar scopes. Also, the small sized fighter does not have the payload capacity of ECM electronic jammers that experience in Southeast Asia has proven is mandatory for survival over enemy held airspace defended by SAM missiles. Finally, the small, lightweight figther cannot carry the radar and electronics needed for radar-guided longer range missiles such as our Sparrow or Phoenix. These missiles provide an all-weather launch capability and also have a much larger firing envelope than a Sidewinder, particularly from the rear during a tail chase.

It is the requirement for these operational capabilities mentioned above, long-range search radar, lookdown and shootdown, longer range missiles, all-weather guidance, and effective electronic countermeasures, that gives an F–14 or an F–15 an overwhelming operational advantage over a lightweight fighter.

THE F–104 IN SOUTHEAST ASIA

Experience in Southeast Asia has confirmed the need for these requirements. I would like to cite one particular example of what happened over there when we did deploy a lightweight fighter, in the case the F–104. It should be noted, first, that the F–104 almost perfectly matches the description of the proposed lightweight fighter. It is about the same weight, has very limited range, carries only two Sidewinders and a gun, no search or fire control radar, but has outstanding acceleration and rate of climb. In 1966 a squadron of F–104's was sent to Southeast Asia with the mission of escorting F–105's on their strikes into the hot areas of Route Package 6 in North Vietnam. The first problem encountered was their lack of range. The small F–104 was so range limited that the Sidewinder missiles had to be removed and replaced with extra external fuel tanks, in addition to the two normally carried. The F–104 ventured over the North armed with a Gatling gun and a small and useless radar set. The results were neutral; the F–104's did not shoot down any Mig's, and the Mig's did not get any 104's.

There was one deficiency of the F–104, however, in that it did not carry any radar warning or electronic countermeasures—ECM—gear. In 1 day two of the F–104's were shot down by SAM's, and the planes were immediately withdrawn from the North and never sent back to Hanoi again. The conclusion reached was that they just did not have the capabilities, as compared with the F–4's, that were needed to be an effective air superiority fighter in the conditions existing over North Vietnam. The F–4, with a superior load of offensive and defensive equipment and considerably longer range and endurance, was a far superior fighter weapons system.

SUPPORT FOR PROTOTYPE PROGRAM

I do not want to imply from these remarks that I am opposed to the lightweight fighter prototype program because I am not. There is a school of thought among fighter pilots and among force planners that we should examine the possibility of complementing the capabilities of our F–14 and F–15 forces with larger numbers of smaller, cheaper, dogfighters of this lightweight fighter class. These aircraft could be a specific counter to the swarms of MIG–21's that the Communist countries possess. While not being suitable for the longer range missions into the high threat defensive areas, these less capable aircraft could offset the disparity in numbers with which we are faced in the forward battle areas. Such a concept certainly is worthy of operational test and evaluation, and the light fighter prototype program could be used to serve this purpose. I would feel that this would be a worthwhile objective for this prototype program.

But on the other hand, I do not believe that we should consider this lightweight fighter to be a panacea. There is no simple, cheap, easy solution to our need for the world's best fighter force. The Navy F–14 and Air Force F–15, while expensive, are the best that we can produce to meet modern fighter requirements and to counter the sophisticated Russian threat exhibited by Foxbat and Flagon. The sophisticated threat requires a sophisticated defense. The Sparrow and Phoenix missile systems are the only possible counter to the Foxbat, for example. The Sidewinder and gun cannot even be brought within firing range of a Foxbat airplane, flying at mach 3 at 70,000 feet. Better capabilities definitely are needed.

The lightweight fighter concept, if it should prove viable, will be useful in a complementary role. I believe that we would be foolish to scrap our F–14 and F–15 and place all of our reliance for our future fighter forces on this type of aircraft with its limited capabilities.

Mr. President, during the last few minutes of debate on the F–14 program I would like to comment on a so-called

fact sheet that was distributed apparently to every member of the Senate yesterday by the distinguished Senator from Wisconsin, Senator PROXMIRE. This so-called fact sheet contains many inaccurate statements and misstatements. I feel confident that the distinguished Senator has been ill informed, and I would like to take this opportunity to set the record straight.

The distinguished Senator cited six reasons why the F–14 program should be stopped. I shall address each one.

1. MISSION

Senator Proxmire stated that the F–14 cannot protect Navy carriers from the threat and even if it were perfect the Phoenix missile system could be penetrated by enemy attacks.

All of the expert testimony before our committee was to the effect the F–14 and the Phoenix missile system will meet their mission requirements of air superiority and Fleet Air Defense. Even NASA has advised Dr. Foster that the F–14 could meet its air superiority predicted performance without compromise.

The distinguished Senator has cited previously vague, anonymous, and unidentified people and studies as the source of his statement that the F–14 would not meet its mission requirements.

I for one am certainly unwilling to make such an important decision based on anonymous sources as the basis for making one of the most important decisions affecting our national security.

No one at this time can state positively what the F–14 will do after it is operational in the fleet. Quite obviously we are still in the test program. Two F–14's are currently flying, and they are meeting the predicted performance characteristics at this point in time. Therefore, it is clearly unwise in the light of all existing evidence for anyone to categorically state that the F–14 will not fulfill its mission requirements.

2. COSTS

The distinguished Senator states that the F–14 promises to be the most expensive fighter plane ever built. This may or may not be true. I am certainly willing to agree that it is expensive, but this is no mystery. With the inflation existing in the United States today, every weapon system we are purchasing costs substantially more than the same type of equipment that we had purchased previously.

One very glaring error is Senator PROXMIRE's statement that the F–14 costs have gone from $11.5 million to $16.7 million since the beginning of the year. In my F–14 speech I attempted to explain the facts of life with reference to these figures. What does the record show? Since September 1969 the Armed Services Committee has been consistently informed that the program unit cost would be $16.6 million. The figure of $11.6 million per F–14 used by Senator PROXMIRE was accurate and still is accurate if the Government were to purchase 722 F–14's.

It is difficult to get recognition on the part of the critics of the program that unit cost per aircraft changes dramatically when the quantities involved are changed. I respectfully refer the distinguished Senator to my example of the Defense Department purchase of widgets in the hopes that it will clear this matter up for him.

Senator PROXMIRE states the F–14 cost will eventually reach $20 million. He previously requested the General Accounting Office to verify this figure. They were unable to do so because it has no validity. It is speculation on the part of the distinguished Senator.

I certainly recognize that the costs incurred by the prime contractor of producing the F–14 have gone up, but what I am vigorously recommending today is the Government maintaining the integrity of the existing contract which definitely limits the Government's liability to the provisions contained in this fixed price incentive contract.

The Senator states that the Phoenix missile will be the most expensive air-to-air missile ever built. In this he is correct. It will be expensive. However, he fails to take note of the fact that it will offer a capability to the Navy never before achieved. It represents a quantum jump in technology and capability for knocking down enemy aircraft and cruise missiles.

The Senator states that three Mig–21's cost only $2.4 million, and this is also the cost of 1 F–4. I don't know where the Senator received information on the cost of the Mig-21 being $800,000. Official information furnished to me states that the cost of the Mig–21 is more than double the cost quoted by Senator PROXMIRE.

The Senator's fact sheet on costs states that the F–4 costs $3.4 million in the first paragraph and $2.4 million in the second paragraph. Therefore, the Senator has an obvious inconsistency in his own fact sheet.

3. CAPABILITIES

Senator PROXMIRE states that Pentagon and contractor studies show that the F–14 will be no better in the air superiority role than the F–4. Once again, we are confronted with anonymous and unidentified studies. I have already set forth in my F–14 speech the specifics on this, namely that the F–14 will be a substantial improvement over the F–4 in the dogfight role. It will have a better rate of climb; better roll rate; better visibility; a tighter turn radius; and so forth. These are the key ingredients of dogfighting, and the F–14 will be superior to the F–4 in every important area. Therefore, there is no valid basis for saying that the F–14 is no better than the existing F–4.

4. SECURITY APPLICATIONS

Senator PROXMIRE states the purchasing of the F–14 would be an exercise in gold-plated unilateral disarmament. My comment to this is that if we cancel the F–14, we most assuredly will be engaged in a policy of unilateral disarmament. We cannot rely on a vague, unidentified aircraft nor lightweight fighter to replace the F–14.

I agree with the Senator that quite probably we will not purchase as many F–14's as we have F–4's, and I agree further that the cost of the F–14 may be an important consideration as to why we do not purchase as many. However, the Senator fails to recognize that the F–14 will have a significantly greater capability, and, therefore, we may be able to operate as effectively with a lesser quantity.

Also, Senator PROXMIRE fails to recognize that the Navy and the Marine Corps would not have purchased 1,500 F–14 and F–8 fighters if it had not been for the Vietnam war. It was necessary to purchase additional F–4's to make up for those that were lost in combat, and the same holds true for the Air Force.

That is why F–4's cost as little as they do today. The Government has purchased nearly 4,000 of this fine aircraft. If we were to purchase 4,000 F–14's, I can assure the distinguished Senator and the Senate that the unit cost would be dramatically less.

5. SUNK COSTS

I agree wtih Senator PROXMIRE that we have already invested over $1 billion in the F–14 program, and I agree further that it will cost us $4 billion more to complete the purchase of 313 F–14's. However, we should be careful about the $10 billion figure that Senator PROXMIRE states will be necessary to operate and maintain the F–14 fleet through 10 years of operation in the Navy. These are expenses that would be incurred on any aircraft system. It covers the normal day-to-day operating expenses, including personnel costs. These same costs would be incurred on any vital aircraft. I will say that it may be somewhat larger on the F–14 program because it will be a more sophisticated aircraft and consequently may require a slightly higher cost in maintenance.

6. ALTERNATIVES AVAILABLE

Senator PROXMIRE states—

The Air Force estimates that its light fighter would cost $3 million per copy in production.

There is no basis in fact to my knowledge for this statement. The Air Force advised me today that it has never released an estimated unit cost figure for the lightweight fighter to anyone. Furthermore, the Senator completely misunderstands the status of this project.

The Air Force does not have a requirement for a lightweight fighter in operational inventory. It does not have a military requirement for such a fighter. What are the facts? The Air Force is in complete agreement with Secretary Packard to undertake a prototype production for a lightweight fighter. This would involve two companies building two aircraft each to further the technology in this area. Obviously it will advance the state of the art. Of equal importance it will enable the United States to keep intact some of the aeronautical design teams and skilled expertise in this country. We can ill afford to let this technical expertise go by the board. Merely because the Air Force supports the prototype development of a lightweight fighter should not in any way be construed or inferred that the Air Force intends to put the plane in production. It is reasonable to assume that if in a few years one of these prototypes emerged with a highly successful design and estimated capability that the Air Force would then desire to produce some aircraft as a complement to the F–15. But for anyone to say that such a plane would cost $3 million per copy is sheer speculation.

Senator PROXMIRE has vigorously complained about the rise in cost for various

weapon systems. I am sure he would not want us to rely on a figure of $3 million per copy of a lightweight fighter when there is not the slightest vestige of Air Force fact to support his premise.

Senator PROXMIRE states that the lightweight fighter would outperform the F–14 by 80–100 percent. There is not the slightest evidence available to me or the Tactical Air Power Subcommittee to support this premise. We do know what the predicted F–14 and the actual F–4 performance characteristics are. What a lightweight figher would do is opinion and conjecture for the simple reason that we do not have one flying and would not have for several years. I would like to add that a lightweight fighter of any type would be severely restricted in range capability because by their nature they have a very low fuel load capability. Consequently, they would not be able to fly a protective air cover for the A–6's and A–7's when they were engaged in long-range interdiction missions or close air support missions, and I assure the Senate that this is a vital requirement for any fighter aircraft to perform. If they cannot protect our tactical air-to-ground aircraft, then they would be extremely vulnerable to enemy air attack

Finally, Senator PROXMIRE indicates that it would be more or less of a simple task to put the Phoenix on the A–6 and that it would be available as early as the F–14. This, of course, is completely erroneous. It would take a major effort to reconfigure the AWG–9 avionics fire control system. As a matter of fact, the cost was more than $100 million to make the fire control system on the F–111 compatible with the F–14. Therefore, I assure the Senate, Mr. President, that this indeed would not be a simple or inexpensive task.

In conclusion, Mr. President, I hope that I have placed the program in the proper perspective, and I deeply regret that the distinguished Senator from Wisconsin has labeled his paper as a fact sheet.

The distinguished Senator does say that the Navy does need a new fighter. It is my firm conviction that it should be the F–14. The F–4, while a fine aircraft, was designed in the mid-1950's, and it will not meet the threat in the mid-1970's or 1980's. Further, a vague, unidentified so-called cheaper lightweight fighter will certainly not be an adequate replacement.

Without any hearings or detailed findings, the distinguished Senator from Wisconsin requests the Senate to adopt a pig in the poke approach in lieu of a well thought out F–14 program. I, for one, cannot adopt such an approach to protect our vital national security interests.

Mr. PROXMIRE. Mr. President, in response to the distinguished Senator from Nevada, he, too, issued a fact sheet, which is on the desks of Senators. I want to make a response to that fact sheet to point out the inaccuracies in it. I stand by what I said. I have heard nothing on the floor to contradict the position I have taken. I think it can be confirmed.

The Senator from Nevada argues, in the first place, that the mission of the F–14 is a valid mission and in effect that it cannot be saturated by a large array of enemy attackers. Now, Mr. President, no air defense system will protect the carrier against cruise missiles and torpedo attacks. We need submarines not gold-plated F–14's to preserve the control of the seas.

The fundamental argument against the F–14 is that the mission does not make any sense. The purpose of the F–14, as I understand it, is to enable the carrier to be able to contest the Soviet Union under circumstances in which nuclear war could be impending and under circumstances in which the Soviet Union used conventional power. I submit it does not make any sense for the air carrier to serve that function. It is overwhelmingly vulnerable with its gigantic size—as long as three football fields, it is slow-motion mobility at 50 miles an hour maximum speeds compared to supersonic planes and missiles. In a nuclear environment facing a power like the Soviet Union it is obsolete. I think the aircraft carrier can function, but it is not where it confronts the other superpower in the world.

The argument that we have made against the F–14's $16 million cost is conceded to a very great extent by the Senator from Nevada in his fact sheet. Even on his own figures, the F–14 is three times the cost of the aircraft it would replace, and the Phoenix missile would carry a cost 7 to 10 times the next most expensive missile.

Furthermore, as far as the F–14's dogfighting capabilities are concerned, the argument I have made again and again on the capability of the F–4 has not been challenged. I have told the Senator from Nevada—my staff has told his staff—where we got the information, who furnished the study. We cannot disclose it any further. We cannot disclose it publicly. But as I said before, there is a study which has been made by competent people in government that a new light fighter would have an 80 to 100 percent superiority over the F–14 at one-fifth of the cost.

The argument is made that we have already sunk $1.5 billion in costs into the F–14 and that we simply have to go ahead because we have too much at stake. This is the greatest mistake the Government makes on these systems. It rarely can summon up the courage to cut its losses. I think we should keep in mind that if we go ahead, it will not be $1.5 billion, but $5.7 billion in capital costs, and along with maintenance and operations costs of $10 billion, it would be a total of 10 times as big as the cost we have already put in. Certainly it makes no sense to say we cannot afford to lose the $1.5 billion we have put into the plane up to the present time.

We have suggested an alternative, a lightweight fighter, that would cost far less, which would have dogfight capabilities sharply superior to the F–14, and one that would cost a great deal less, no more than $3 million, and would meet all the purposes that the F–14 would meet except to carry the Phoenix missile.

As far as the Phoenix missile is concerned, we have aircraft capable of carrying it, if that is the purpose. The A–6 can do that, and that seems to be the only remaining purpose of the F–14.

Altogether, it seems to me that the Senate has to draw the line somewhere on the enormous costs of our military spending. This F–14 issue dramatizes how military spending is out of control.

The PRESIDING OFFICER. The Senator's time has expired. All time on the amendment has expired.

Mr. PROXMIRE. I yield the floor.

The PRESIDING OFFICER. The yeas and nays have been ordered, and the clerk will call the roll.

Mr. STENNIS. Mr. President, what is the question before the Senate?

The PRESIDING OFFICER. The question is on agreeing to the amendment of the Senator from Wisconsin.

Mr. STENNIS. It is a straight up and down vote. Is that correct?

The PRESIDING OFFICER. It is a straight up or down vote on the amendment.

The clerk will call the roll.

The legislative clerk called the roll.

Mr. PACKWOOD (after having voted in the affirmative). Mr. President, on this vote I have a pair with the Senator from New York (Mr. JAVITS). If he were present and voting, he would vote "nay." If I were at liberty to vote, I would vote "yea." Therefore, I withdraw my vote.

Mr. BYRD of West Virginia. I announce that the Senator from Indiana (Mr. BAYH), the Senator from Oklahoma (Mr. HARRIS), the Senator from Hawaii (Mr. INOUYE), the Senator from South Dakota (Mr. MCGOVERN), the Senator from Connecticut (Mr. RIBICOFF), the Senator from North Carolina (Mr. JORDAN), and the Senator from New Mexico (Mr. MONTOYA) are necessarily absent.

I further announce that, if present and voting, the Senator from New Mexico (Mr. MONTOYA) would vote "yea."

On this vote, the Senator from Indiana (Mr. BAYH) is paired with the Senator from Connecticut (Mr. RIBICOFF). If present and voting, the Senator from Indiana would vote "yea" and the Senator from Connecticut would vote "nay."

On this vote, the Senator from South Dakota (Mr. MCGOVERN) is paired with the Senator from North Carolina (Mr. JORDAN). If present and voting, the Senator from South Dakota would vote "yea" and the Senator from North Carolina would vote "nay."

Mr. GRIFFIN. I announce that the Senator from Iowa (Mr. MILLER) is necessarily absent.

The Senator from New York (Mr. JAVITS) is necessarily absent because of religious observance.

The Senator from South Dakota (Mr. MUNDT) is absent because of illness.

The pair of the Senator from New York (Mr. JAVITS) has been previously announced.

The result was announced—yeas 28, nays 61, as follows:

[No. 236 Leg.]

YEAS—28

Brooke	Ellender	Hughes
Burdick	Fulbright	Humphrey
Case	Gravel	Kennedy
Church	Hart	Mansfield
Cranston	Hartke	Metcalf
Eagleton	Hatfield	Mondale

Moss	Proxmire	Tunney
Muskie	Saxbe	Williams
Nelson	Stevenson	
Pell	Symington	

NAYS—61

Aiken	Dole	Pastore
Allen	Dominick	Pearson
Allott	Eastland	Percy
Anderson	Ervin	Randolph
Baker	Fannin	Roth
Beall	Fong	Schweiker
Bellmon	Gambrell	Scott
Bennett	Goldwater	Smith
Bentsen	Griffin	Sparkman
Bible	Gurney	Spong
Boggs	Hansen	Stafford
Brock	Hollings	Stennis
Buckley	Hruska	Stevens
Byrd, Va.	Jackson	Taft
Byrd, W. Va.	Jordan, Idaho	Talmadge
Cannon	Long	Thurmond
Chiles	Magnuson	Tower
Cook	Mathias	Weicker
Cooper	McClellan	Young
Cotton	McGee	
Curtis	McIntyre	

PRESENT AND GIVING A LIVE PAIR, AS PREVIOUSLY RECORDED—1

Packwood, for.

NOT VOTING—10

Bayh	Jordan, N.C.	Mundt
Harris	McGovern	Ribicoff
Inouye	Miller	
Javits	Montoya	

So Mr. PROXMIRE's amendment (No. 435) was rejected.

Mr. STENNIS. Mr. President, I move that the vote by which the amendment was rejected be reconsidered.

Mr. TOWER. Mr. President, I move to lay that motion on the table.

The motion to lay on the table was agreed to.

ENROLLED BILL PRESENTED

The Secretary of the Senate reported that on today, September 29, 1971, he presented to the President of the United States the enrolled bill (S. 1253) to amend section 6 of title 35, United States Code, "Patents" to authorize domestic and international studies and programs relating to patents and trademarks.

MILITARY PROCUREMENT AUTHORIZATIONS, 1972

The Senate continued with the consideration of the bill (H.R. 8687) to authorize appropriations during the fiscal year 1972 for procurement of aircraft, missiles, naval vessels, tracked combat vehicles, torpedoes, and other weapons, and research, development, test, and evaluation for the Armed Forces, and to prescribe the authorized personnel strength of the Selected Reserve of each Reserve component of the Armed Forces, and for other purposes.

The PRESIDING OFFICER (Mr. BROCK). Pursuant to the prior order, the Chair now lays before the Senate amendment No. 443, which the clerk will report.

The assistant legislative clerk read as follows:

On page 8, line 10, strike out "$1,066,100,000" and insert in lieu thereof "$427,100,000".

On page 12, beginning with line 3, strike out all down through line 4 on page 14, and insert in lieu thereof the following:

"TITLE IV—PROHIBITION AGAINST DEPLOYMENT OF ANTIBALLISTIC MISSILE SYSTEM

"SEC. 401. (a) Except as provide in subsection (b) of this section, none of the funds authorized to be appropriated by this or any other Act may be obligated or expended for the purpose of deployment of an antiballistic missile system at any site or for the purpose of advanced preparation (site selection, land acquisition, site survey, or the procurement of long leadtime items) for any such system at any site.

"(b) There are hereby authorized to be appropriated such sums as may be necessary to terminate and settle all contractual obligations relating to the deployment of an antiballistic missile system and to the advanced preparation for any such system which were entered into prior to the date of enactment of this title. The Secretary of Defense shall submit estimates to the Congress at the earliest practicable date regarding the amount of funds necessary to terminate and settle all such obligations. The Secretary shall keep the Congress fully and currently informed until all such obligations have been finally terminated and settled.

"(c) Nothing in this section shall be construed to prohibit the use of funds appropriated for carrying out research, testing, development, and evaluation of an antiballistic missile system."

On page 14, line 5, strike out "(b)" and insert in lieu thereof "(d)".

Mr. HUGHES obtained the floor.

Mr. STENNIS. Mr. President, will the Senator yield me 1 minute?

Mr. HUGHES. I yield.

Mr. STENNIS. Mr. President, I observe that we have two amendments which provide on the first one for an hour and a half, with 45 minutes to a side, and on the other for 2 hours, with 1 hour to a side—3½ hours altogether.

I would judge, from the requests I have for speakers, that perhaps all the time will not be used. That is just a guess on my part. It may be that we can vote long before 8 o'clock. Thus, I would hope that all Senators would remain so that they can cast their votes.

Mr. HUGHES. Mr. President, I ask for the yeas and nays on my amendment.

The yeas and nays were ordered.

Mr. PROXMIRE. Mr. President, will the Senator from Iowa yield me 1 minute?

Mr. HUGHES. I yield.

Mr. PROXMIRE. Mr. President, the Senate has voted to continue with the F–14 program. If that is the will of Congress, of course I accept it. But I remain troubled over the prospect of a Grumman bailout. I submit an amendment dealing with this Grumman bailout issue, which is designed only to clarify Armed Services Committee language.

I send the amendment to the desk and ask that it be printed.

The PRESIDING OFFICER. The amendment will be received and will be printed.

Mr. HUGHES. Mr. President, consistent with the position I have held since the ABM issue was first debated in this body, I am once again offering an amendment to halt all deployment of the Safeguard anti-ballistic-missile system.

While it is the intent of the amendment to continue and encourage research and development of antiballistic missilery, the amendment would terminate all existing contracts for military construction work and for operational components of the system. It would also order the settlement of all claims against the Government resulting from the termination.

I recognize that my insistence on halting all deployment differs with that of a number of my colleagues whose views on the arms race in general parallel my own and for whose intelligence and good judgment I have the highest regard.

But I believe this amendment also keeps faith with many Americans in the Congress and in the general public who have believed for a long time that this ABM system, like its predecessor, the Sentinel, is neither a credible deterrent nor a sound investment for our country.

The case against deployment of the Safeguard system has been clearly and completely set forth in extended congressional debate over a 2-year period. Silence on the subject now will not impair their validity or erase the arguments which I consider overwhelmingly persuasive from the record.

A little over 2 years ago, this body, by a single vote, agreed to initiating deployment of the Safeguard system. And last year, again by an extremely narrow margin, the Senate acceded to another billion dollar-plus installment. Today we are asked to underwrite still another.

Progress in the deployment of Safeguard over the past 2 years is also a matter of public record. At the most advanced site near Grand Forks, N. Dak., construction work on only the first of a number of structures will not be completed until July of next year. None of the hardware has yet been delivered—no missiles, radars, or computers are in place at any of the deployment sites. Of the $9.5 billion in the Pentagon's four-site cost estimate, and the $3.7 billion already authorized for the system, including research and development, less than $2.5 billion had actually been expended by the end of fiscal 1971.

As you know, Mr. President, another billion dollars that has been approved by the House and endorsed by the Senate Armed Services Committee is included in the bill we are now considering and has not yet been added to the so-called sunk funds.

In other words, we have not progressed so far with Safeguard that we have, in any sense, reached a point of no return.

My amendment would save us $748 million this year and several billions in the years ahead—money that would be a very strategic weapon in the country's losing war against inflation.

We are all devoutly praying for the success of the SALT negotiations currently under way. A year ago, it was argued that ABM deployment would constitute an effective "bargaining chip" for these talks. There is no more reason, in my view, to accept this as a valid premise today than there was a year ago. Then, as now, the most effective instrument for negotiation is the credible desire for peace.

If the Safeguard system did have any value as a "bargaining chip," which I do not believe, it would not be found in the earth that has been rearranged at three remote locations or the unfurnished concrete structures that can be found there.

Its value is in the technology we have developed—a technology that could easily be converted to research and development of an ABM system designed specifically for the Minuteman defense role,

perhaps at one-third the estimated cost of the four-site Safeguard. This is the so-called hardsite option.

We all hope for a zero-ABM agreement at SALT that would make even hardsite unnecessary, and it is that hope, plus the continued hazard to the Russians embodied in our advanced ABM technology, that will stimulate agreement.

The fact of the matter is, Mr. President, that the strategic arms limitations talks have moved slowly despite administration arguments that continued support for Safeguard would force an early agreement.

In the meantime, we have continued, and the Soviets have continued, to expand our strategic offensive arsenals.

The key need is to call a halt to this terrible momentum.

If we are to appear unquestionably sincere about reaching an agreement, it is imperative that we act as if we intend to limit the arms race, not expand it; and the history of United States-Soviet negotiations in recent years has proven this to be the case.

Mr. President, I deeply believe that our rejection of the ABM would strengthen, rather than weaken, our negotiating position in the SALT talks.

For many months the country has been bombarded with contentions that the security of the Nation is being threatened by the continuing buildup of Soviet strategic forces. This threat has been the centerpiece of a collection of justifications for beginning deployment of the Safeguard system to defend our force of a thousand Minuteman intercontinental ballistic missiles.

Other rationalizations for Safeguard deployment surfaced virtually from week to week, as the inadequacies of the system for first one mission and then another were exposed. Safeguard was also intended, its proponents said, to provide a light area defense against a future Chinese ICBM threat, against an accidental launch of a missile targeted for the United States, and against an attack on our bomber force.

One by one, these auxiliary justifications fell by the wayside, and last year, the Senate Armed Services Committee recommended that the area defense component of the system be dropped, to which the Congress agreed. The proposal before the Senate today carries forward that decision from last year, confining all four to the role of defending Minuteman.

Mr. President, a host of leading American scientists, with access to the pertinent intelligence information and a thorough understanding of strategic weapons systems, have disputed the threat evaluation presented by the Department of Defense. And in congressional testimony this year, they have contended even more persuasively that the Safeguard system is enormously expensive by comparison with the marginal amount of Minuteman protection it affords.

Dr. W. K. H. Panofsky, whose calculations of Safeguard's minimal protection impressed so many members of the Senate last year, told the Senate Armed Services Committee this year:

> The protection offered by Safeguard for the Minuteman force is negligible. Even if Safeguard functions perfectly, it offers significant protection to Minuteman only over a very narrow band of threats; if the threat continues to grow as rapidly as it can technically, Safeguard is obsolete before deployed; if the threat levels off, Safeguard is not needed.

In his testimony to the Defense Subcommittee of the Senate Appropriations Committee, Prof. Marvin L. Goldberger, who is chairman-elect of the Federation of American Scientists, said in a statement supported by the executive committee of the federation, as well as its strategic weapons committee:

> The Safeguard ABM system, and please note the emphasis on the word Safeguard, must be defended on its own merits. If its only purpose is bluff, let's make it out of wood and paper maché. It is time that this whole charade of threat and irrelevant response is brought to an end. We can no longer continue the kind of irrationality which feeds the arms race and which, at every turn, decreases our security.

Dr. Panofsky and Professor Goldberger focused in their tesitmony on the sheer immensity of the power of our strategic nuclear forces—power so great that, in the combination of three devastating weapons systems, we are all but invulnerable to challenge by any but a suicidal maniac.

This was also the basic thrust of highly persuasive statements presented by Dr. Herbert York, who was Director of Defense Research and Engineering under both Presidents Eisenhower and Kennedy, and Dr. Herbert Scoville, who has been a leading scientist for both the Central Intelligence Agency and the Arms Control and Disarmament Agency.

Mr. President, we have developed our strategic posture over the last 25 years to give us a retaliatory capability that would be certain to survive a first strike and then inflict unacceptable damage upon an enemy.

To achieve such certainty in the early days of uncertain weapons technology, we created a triad of strategic nuclear weapons system—the ICBM force of 1,000 Minuteman missiles and 54 Titans, the nuclear bombers, and the Polaris submarine force—each designed to survive a first strike independent of the others.

It is universally conceded that, in order for the Soviet Union to launch a first strike successfully, it would have to inflict simultaneous and virtually total destruction on all three components of the triad, and this is a technical impossibility now and for the foreseeable future.

Support for this view has come from Dr. John Foster, Director of Defense Research and Engineering, who told the Senate Armed Services Committee that Russia never has had, and does not now have, a first-strike capability—that is, the assurance of destroying enough of our strategic weapons to reduce the damage from our retaliation to levels they could consider acceptable.

Despite this awesome facade, we are rushing forward with a MIRV program that will vastly increase the very real and hideously destructive power we already command. Tripled MIRV warheads are being installed on modernized Minuteman missiles. The Polaris submarine fleet is being retrofitted with Poseidon MIRV missiles; the full Poseidon fleet could eventually carry some 5,000 warheads.

A single Poseidon submarine with 160 warheads constitutes, by itself, a massive deterrent. Fifty Minuteman III missiles constitute a similar retaliatory threat. And a single intercontinental bomber carries on the order of a hundred times all the destructive power ever loosed in warfare.

No potential enemy would dare challenge this array.

As I indicated earlier, Mr. President, the only remaining mission for Safeguard is a marginal role in defense of one member of the triad, the land-based Minuteman force, and for this role, the system is ill suited, if it can be made to work at all.

Safeguard was designed from the old Sentinel system of ABM's, which were contemplated as a defense—not of hard ICBM silos—but of urban areas and industrial installations. It hardly seems necessary to point out that protection of people against nuclear attack requires a vastly more sophisticated, and therefore more expensive, system than would be required to prevent the destruction of an underground missile silo.

The suitability of Safeguard for defense of Minuteman has been seriously called into question by Secretary Laird's own ad hoc group for Safeguard for fiscal year 1971. In January of last year, the group reported:

> If the only purpose of Safeguard is defined to be to protect Minuteman, Phase IIA as defined in March 1969 should not proceed. Instead, a dedicated system for active defense of Minuteman should replace or, if the need for the MSR is proved, augment Phase IIA.

This year, the chairman of that advisory group, Lawrence O'Neill, did not succeed in refuting the validity of that recommendation when he appeared before the Senate Armed Services Committee last April 20. In response to a question from the senior Senator from Missouri (Mr. SYMINGTON), Mr. O'Neill said:

> What we said was that if the only purpose of Safeguard was to defend Minuteman, then we should proceed with the Hardsite option with all vigor, and we should resolve as rapidly as possible the issue of whether the MSRs were needed or not needed in the Hardsite option, and we spelled out the probable cost, or tried to estimate the probable cost, of making that estimate on whether the MSRs are needed. So far as I know that issue has not been laid to rest. Still my own opinion is that the MSRs do contribute very substantially to the capability of the Hardsite option.

To paraphrase what I understand Mr. O'Neill to have said each time, we should halt Safeguard—since its purpose is defined solely as defense of Minuteman—and we should move immediately to development of a "dedicated system for active defense of Minuteman." Whether or not the MSR is needed is a proper subject for the continuing research and development work that my amendment would authorize and encourage.

Mr. President, the cost of the four-site

Safeguard deployment has now risen to $9.5 billion, calculated in 1972 dollars. That includes direct and indirect operating costs during the period of development and deployment, as well as the cost of warheads, which is borne by the Atomic Energy Commission.

If inflation continues at the existing pace, that figure is certain to be several billion dollars higher by the scheduled completion date 6 years in the future.

Adoption of my amendment would strike a total of $748 million out of the pending authorization and hold total outlays for Safeguard down to the neighborhood of about $3 billion.

At a time when working people are denied increases in pay, when even our servicemen are denied their long-justified pay raises enacted into law, it strikes me as inconsistent that we continue with these huge expenditures for a system which we may not even need. If we really want to reduce Government spending, we would do better to negotiate a zero-ABM agreement and pay more attention to the problems of the hungry, the unemployed, and the poorly housed here in America. To give just one example, with the $748 million saved by this amendment, we could build 50,000 low-cost housing units, each with two bedrooms. Such construction, I believe, would do much more to safeguard America than the missile system that bears the name

PROVISIONS OF SENATE AMENDMENT 443

Mr. President, at this point I would like to summarize the provisions of Senate amendment 443 so that its intent is clear in the RECORD.

First, the amendment strikes out the entire amount recommended by the Senate Armed Services Committee for procurement of Safeguard equipment and missiles that are eventually intended to become operational. As I understand the situation, all of these items—radars, computers, missiles, and missile launchers—have yet to be delivered for deployment at any of the four regular sites.

The amount to be stricken under this provision is $639 million.

Second the amendment strikes out all but the last subsection of title IV. This is left in the bill to repeal existing statutory language limiting deployment which my amendment would replace.

The effect of this amendment is to remove the $109.6 million recommended by the committee for Safeguard construction work in fiscal 1972. I would point out, Mr. President, that even at the most advanced site near Grand Forks, N. Dak., construction of the first structure is not to be completed until July 1972 under present schedules. At Malmstrom, the target for completion of the initial construction is mid-1973. At the other two sites—near Whiteman Air Force Base, Mo., and Warren Air Force Base, Wyo.—no actual construction work has yet begun.

The amendment expressly prohibits any further use of funds authorized by this or any other act for deployment of an antiballistic missile at any site.

However, it also specifically exempts ABM research, development, testing, and evaluation from the fund cutoff. This has the effect of continuing the committee's recommended authorization of $357.6 million in research and development funds.

Finally, the amendment authorizes such funds as necessary to terminate and settle all existing contractual obligations and directs the Secretary of Defense to keep the Congress fully informed in this regard. At the close of the last fiscal year, there were nearly $1 billion of unexpended funds in the Safeguard accounts, some of which could be used to reimburse contractors. The remainder would have to be appropriated as necessary.

Mr. STENNIS. Mr. President, I yield myself 5 minutes.

The PRESIDING OFFICER. The Senator from Mississippi is recognized.

Mr. STENNIS. Mr. President, I will make a brief statement about what the committee did and then I will yield to the Senator from Kentucky.

Mr. President, the committee modified the bill but it kept all four of the sites open that have been authorized heretofore, but limited the program for the time being to these four sites at Grand Forks, Malmstrom, Whiteman Air Force Base and Warren Air Force Base.

The committee bill provides for deployment only at Grand Forks and Malmstrom. That is both as to the money in the bill and the letter of the bill, with advance preparation at Whiteman Air Force Base and Warren Air Force Base.

We took advantage of reductions of certain slippages that occurred, such as serious labor difficulties, which still continue. The reductions come from the changes I have mentioned. The reductions amount to $161 million in round numbers.

The committee bill keeps the status quo of the program but modifies it in view of these slippages.

Another item that should be mentioned is the MSR, radar money, which in the bill is tagged for Whiteman, but it is eligible for Malmstrom.

The committee idea was to round this out, and meet realities and make reductions to suit the program development that can be made, but not weaken our position at all, as heretofore made, and upon which the SALT talks are proceeding.

I am glad to yield to the Senator from Kentucky, a man who is highly versed in this field and dedicated to the concept of peace. He has long been active in this problem and all the problems that go with it.

Mr. COOPER. Mr. President, I shall take 10 to 15 minutes.

Mr. STENNIS. Mr. President. I yield 15 minutes to the Senator from Kentucky.

Mr. COOPER. Mr. President, at the outset I want to say that I respect very much the position of the distinguished Senator from Iowa. I have known since he first came to the Senate of his deep concern about the continuation of the arms race and his humane consideration of, sympathy, and compassion for the problems of this Nation and its people which he, like many others, feels are not being adequately met.

Because of the past position I have held on the anti-ballistic missile weapon system. I speak on the pending amendment, and of my position upon the ABM system at this time.

In the past I have offered amendments with the distinguished senior Senator from Michigan (Mr. HART) and others to restrict deployment of the ABM system. Many others whom I see in the Chamber today joined with us, such as my friend from Missouri (Mr. SYMINGTON), the Senator from Ohio (Mr. SAXBE), the Senator from New Jersey (Mr. CASE), the Senator from Illinois (Mr. PERCY), and many others.

In April 1968, I first offered an amendment to defer the deployment of ABM altogether, and then joined with the Senator from Michigan (Mr. HART) and other Senators in amendments to limit funding to research and development, and in 1969 and 1970 to limit the deployment of the ABM. I know also that the distinguished Senator from Iowa (Mr. HUGHES), the distinguished Senator from Wisconsin (Mr. NELSON), and the distinguished Senator from Maine (Mrs. SMITH) offered amendments similar in purpose but more restrictive on the deployment of the ABM. They were hard fought and helped to inform the Senate and the Congress on ABM, and open the defense budget to thorough examination.

I wish to explain to the Senate the reasons for the position I have now taken not to join in, or support amendments this year offered to limit the present authorization of ABM deployment.

In August, during the recess, I went to the SALT talks at Helsinki and met with our negotiators and was able to have frank discussions with them concerning the details of the negotiations to that point. I also determined their views as to the future progress of these negotiations. Earlier this year, during the Easter recess, I went to Vienna with a similar purpose.

Like many other Senators I have followed the SALT talks very closely since they began almost 3 years ago. Five rounds of talks have been completed and it is my view that the President's statement of May 20 is still valid. He said:

> The Governments of the United States and the Soviet Union after reviewing the course of their talks on the limitation of strategic armaments, have agreed to concentrate this year on working out an agreement for the limitation of the deployment of antiballistic missile systems (ABM's). They have also agreed that, together with concluding an agreement to limit ABM's, they will agree on certain measures with respect to the limitation of offensive strategic weapons.

As a result of my study and discussions, it is my firm belief that an agreement on ABM at a very low level of deployment, and an agreement completely consistent with U.S. security, is attainable before the end of this calendar year.

I believe strongly, as do many other Senators, that the SALT talks are the most important diplomatic negotiations that have been undertaken since the nuclear age began and even in the history of our country. They offer a significant hope that the nuclear arms race can be controlled. It has been over 10 years since the United States and the Soviet

Union developed the certain capacity to destroy each other many times over—even after sustaining a devastating first strike. Despite this fact, both nations have continued to deploy additional nuclear weapons and deployments on both sides are continuing at this very moment. The United States has increased its nuclear strength by a considerable magnitude through the deployment of MIRV on Minuteman III ICBM's, and the Soviet Union has deployed the SS–9 and the SS–11 ICBM missiles in such quantity that they now have 1,500 as compared to the 1,050 possessed by the United States. The United States is converting a substantial part of its Polaris fleet of 41 submarines to the more lethal, longer range Poseidon MIRV missiles. The Soviet Union is launching nuclear missile submarines at a rate which, if it continues, will bring them to parity with the U.S. submarine missile force in a few years. At the same time, the United States is accelerating its development of the ULMS nuclear missile submarine, the B–1 bomber, and other missile systems. As the Senate is well aware, the strategic component of the defense budget is close to $20 billion, and if SALT fails the amount spent for nuclear weapon systems will increase greatly. The tangible proof of the nuclear arms race lies on the desk of every Senator in the bill now under consideration.

Unless the United States and the Soviet Union can, by agreements to limit the further deployment of nuclear weapons systems, the expensive, and insane nuclear arms race will go on and on—and increasingly threaten life for our people and for the peoples of the world.

I believe the SALT talks are at a stage now where an agreement on the limitation of ABM is attainable. The SALT talks are at a position now that if an agreement on defensive weapons can be attained, an agreement on offensive missiles can take place. The negotiating team at Helsinki, ably led by Ambassador Gerald Smith, has brought the negotiations with the Soviet Union to this point. What remains is for the two governments to take action on the possibility which lies before them. I want to make it clear that I have not talked to the President or anyone on his staff since my talks at Helsinki, but the President's statement of May 20 speaks for itself.

I would like to say at this point, although it is not in my written speech, that I do not have any inside information; that the only information upon which I base my statement today is that which I obtained at Helsinki. The only information I have received since that time was that provided by Mr. Philip Farley to the Foreign Relations Committee in executive session. I must also say that I do not arrogate to myself any superior understanding or knowledge of this problem or of prescience of the future, but I must act according to my best lights and my best judgment, and it is for that reason that I speak.

In giving support to the progress of negotiations thus far, I have not changed my views about the inadequacies of the Safeguard ABM system. The record of the past 4 years has been sustained by additional evidence brought forward this year in hearings and briefings before the Armed Services Committee and the Foreign Affairs Committee of the House and Senate.

I may say that I have read the complete hearings before the Armed Services Committee and, of course, the hearings before the Senate Foreign Relations Committee.

Safeguard as now planned remains a system inadequate to the task of defending the Minuteman missile force against any significant threat. There are many signs that the Pentagon is moving in the direction of developing a more effective missile site anti-ballistic missile system called Hardsite which, in the event that it becomes necessary in the future to deploy an ABM, could provide a more adequate defense.

But for the present—and this is the core of my statement—the adequacy or the inadequacy of the ABM system is not the issue before us. The United States knows the extent of the Soviet ABM deployment and the Soviet Union knows the extent of deployments and advanced site preparation of the United States ABM authorized by the Congress through fiscal year 1971. The Armed Services Committee has not increased—has not expanded—the deployment authorized last year. Negotiations are proceeding upon this basis, and it is now possible that an agreement upon defense systems will be reached which will provide for the deployment of a limited level of ABM defensive systems.

These being the facts, I believe it best that we do not alter the basis upon which negotiations are taking place.

If the Armed Services Committee had presented to us a bill which had expanded the antiballistic missile program, I would join with others in amendment to limit such an expansion, for the reason that it would alter the basis upon which negotiations are taking place.

The matter of greatest importance to the security of the United States and for the protection of our people and other peoples against the danger of nuclear war—a horror impossible to contemplate—is to make every effort to reach the first agreements on defensive systems, and then go on to agreements on offensive systems.

Much credit must go to the Armed Services Committee under the chairmanship of Senator JOHN STENNIS, to its ranking Republican member, Senator MARGARET CHASE SMITH, to my good friend Senator SYMINGTON, to Senator JACKSON, an ardent supporter of ABM, and to all members of the committee for the intense probing of ABM undertaken by the committee over the past 3 years. The committee has withdrawn authority for the deployment authorized last year at Whiteman Air Force Base, and it has stricken site preparation in Washington. It has provided for $60 million for R. & D. on "Hardsite" and it has shown a careful awareness of the importance of the SALT negotiations to the military security of the United States, the strength of the economy, to our foreign relations, and to the halting of the nuclear arms race.

The Senate Foreign Relations Committee has continued this year under the chairmanship of Senator MUSKIE and the ranking minority member Senator CASE, the fine work on strategic policy questions begun in 1968 by our former colleague, Senator Albert Gore, and before that time, under the leadership of our colleague from Minnesota (Mr. HUMPHREY), who has been interested always in the necessity of ending the nuclear arms race in his impassion for the life of our people and mankind.

The hearings record is a testament to the importance the Senate attaches to this fundamental issue. In my view, the work done by the Armed Services and Foreign Relations Committee on the ABM is of a very high order.

Of critical importance in informing the Senate and the country on strategic weapons and strategic policy has been the active participation of weapons scientific and strategic advisers to past administrations and the present administration. The men who have designed and advocated the development of our nuclear weapons systems are foremost among those who have urged that the Congress of the United States should fully examine the implications of any further nuclear weapons deployment before giving approval.

It has been a difficult process to obtain the full facts about the ABM and other nuclear weapons systems. It has been difficult to evaluate the threats that this country faces because of inadequate information, but over the past 4 years we have developed a basis of knowledge and established means of obtaining sound information. I believe that a precedent has been set, and that because of the ABM debate, the Senate and the Congress are now better able to meet their responsibilities under the Constitution, to join with the Executive in the formulation of foreign policy, and providing for the defense of this country—even in this most complex age of rapid technological change.

SALT offers the best means for lessening the danger of nuclear war and for strengthening the security of this country.

I believe it best under these circumstances to maintain the basis upon which negotiations are now taking place—which are the same as those recommended by the Armed Services Committee.

Through fiscal year 1971, the Congress had authorized deployments at Grand Forks, Malmstrom, and Whiteman and advanced site preparation at Warren. The procurement bill as authorized by the Senate Armed Services Committee, while continuing funds has not expanded deployment of ABM. In fact, it has withdrawn authority for deployment at Whiteman and provided that Whiteman shall have the same status of advanced site preparation as Warren Air Force Base.

This, I consider, is consistent with the basis upon which our negotiators and the Soviet Union's are proceeding toward an agreement. I believe there will be an agreement. I may be wrong about this. There may not be an agreement. But whether there is an agreement or not—

and I believe it can be obtained if our Government and our President will continue their strong efforts for agreement—nevertheless the facts remain the same. We are negotiating on a basis of what has been authorized by Congress so far, and we are negotiating on the basis that the Soviet Union has the Galosh defensive system. If an agreement is reached, I believe it will include some elements of an antiballistic missile system. Whatever may be my views as to ABM's effectiveness or ineffectiveness, the fact is that our country is proceeding in an attempt to find some way to limit the defensive systems, and will move on, then, to the limitation of offensive weapons.

I am deeply interested in the agreement on defensive weapons systems, because if an agreement is not reached, there is little hope that the continued deployment of the Soviet SS–9, which has concerned our country, or the deployment of MIRV, which concerns the governments of both countries can be limited.

Without this first defensive agreement, the arms race will go on, and on and that, to me, is horrendous to contemplate.

At this point I would like to urge the distinguished chairman of the Armed Services Committee and the conferees appointed on this bill that they firmly adhere to the position set forth in the report of the Armed Services Committee on ABM deployment; that they will not accept any proposal by the House of Representatives to alter by expansion of the system, the basis upon which negotiations are taking place.

In addition, I would urge the Senate to press for an early agreement at SALT—an agreement which offers the best means for continued peace and greater security by lessening the dangers of nuclear war and the fear of nuclear annihilation. If SALT succeeds, as I believe it can, and the nuclear arms race can be halted, the hopes of all peoples in the world will be lifted once again. There can be no greater achievement of statesmanship than success at SALT. We credit our President with pursuing this aim, and we urge him and our Government to make every effort to obtain an agreement.

Mr. STENNIS. Mr. President, I thank the Senator. There could not be a finer statement made to meet the facts we are confronted with, and I congratulate him on his fine knowledge of this subject.

Mr. JACKSON. Mr. President, I, too, commend the distinguished Senator from Kentucky for his continuing concern about our strategic forces. I know of no Member of this body who has been more conscientious or more sincere in trying to do what he thought was best for the security of the United States of America and for the peace of the world, and I associate myself with the remarks of the chairman of our committee in expressing our appreciation for the many contributions that the able and distinguished senior Senator from Kentucky has made.

Mr. President, for the last 4 years the Senate has considered in detail the issue of the ABM. I do not intend to recapitulate those arguments now. Rather, I want to call the attention of the Senate to three points involving information new since the last debate. I think these three points, taken together, should convince any Senator that the Senate should reject the amendment proposed today by the distinguished Senator from Iowa, which would terminate at once all work on our ABM system.

First, the Strategic Arms Limitation Talks are at a particularly critical point. The President's announcement of last May indicated the possibility, before the end of this year, of an agreement on both offensive and defensive systems. I believe it is clear that, since the beginning of the talks, the Soviets' desire to limit the U.S. ABM system has been at the core of the Soviet interest in the overall negotiations. This desire is the only effective leverage available to us in attempting to obtain limitations on ongoing Soviet programs. I hope that we will be able to negotiate a meaningful SALT agreement which places limitations on the extremely rapid Soviet buildup of ICBM's and SLBM's, as well as on ABM's. But I believe that any realistic observer would have to say that we do not yet know whether the Soviets will agree to this. Under the circumstances it would be extremely unwise for the Senate to show to the Soviets that they can obtain limitations on the American ABM system without agreeing to meaningful limits on offensive systems as well. Every vote in the Senate, at this point in time, to stop the American ABM program unilaterally makes it more difficult for the United States to persuade the Soviets to limit offensive systems as well as defensive.

There is thus a sense in which the good intentions of the proponents of this amendment may have the effect of encouraging the Soviet Union to continue to accelerate the deployment of lethal offensive strategic weapons—weapons that threaten the stability of the strategic balance and raise questions about the credibility of the American deterrent. Far from having the effect of dampening the arms race, therefore, the termination of Safeguard would exacerbate it by discouraging forward movement in the SALT negotiations. This is the view of the American delegation to the talks. It is the view of the President and the Secretaries of State and Defense. It is commonsense.

Let me read in its entirety the section on the subject of Safeguard and SALT from the report of the Armed Services Committee:

SAFEGUARD AND THE SALT TALKS

The committee continues to hold the view, which events have confirmed, that the continuation of work on an ABM system to protect the strategic deterrent is in no way prejudicial to the SALT talks.

Testimony before the committee and before the sub-committee on the Strategic Arms Limitation Talks has been clear and insistent on the relationship between limitations on the Soviet offensive forces and our own defensive deployments: unilateral termination of the Safeguard program would undermine the American negotiating posture and diminish, rather than increase, the likelihood of a successful and stabilizing agreement.

The importance of Safeguard to an agreement at SALT should be self-evident. As one of the central limitations to be negotiated in conjunction with limitations on offensive forces, Safeguard is essential to the American position. Without Safeguard the Soviets would have little incentive to agree to constrain increases to their offensive forces. The progress thus far in the SALT talks has served to confirm the view that Safeguard is essential to their successful conclusion.

While the committee would welcome an agreement that would obviate the need for Safeguard, there can be no assurances that such an agreement will be reached. In the event of an agreement Safeguard could be halted and, if necessary, such construction as might have been completed could be dismantled. Should our best efforts to achieve agreement fail, however, Safeguard would be an important element in the maintenance of a secure deterrent force. To delay the continuation of the modest deployment authorized for fiscal year 1972 would, in the opinion of the committee, put the SALT talks, and our national security, at risk.

It is essential, if we are to negotiate effectively, that the country stand united. The President needs the support of the Senate in attempting to obtain limitations on both offensive and defensive weapons. I urge all Senators to reject this amendment.

Second. There is a second reason why the amendment ending the ABM deployment should be opposed. This year the Armed Services Committee cut $161.4 million from the amount requested by the President and approved by the House of Representatives. In addition, the committee restricted the authorization for full ABM deployment to only two sites—Malmstrom and Grand Forks. Only advance preparation was authorized at the other two sites—Warren and Whiteman. No funds were authorized for preparation or deployment at Washington, D.C. This reduction and this restriction brings the fiscal year 1972 authorization for Safeguard into line with what can be realistically expected for the program this year. As a result of labor disputes and other problems, deployment schedules have been lengthened. But the important point is that the reduction and the restrictions recommended by the committee place us in an appropriate state of balance during the rest of this year. Deployment can go forward at those two sites where work is already underway; and the small amounts spent for advance preparation will enable us to maintain the option to deploy at Warren and Whiteman next year if this should prove desirable.

I am sure I need not remind the Members of this body that the Armed Services Committee last year recommended restricting the Safeguard program to defense of our ICBM bases. This, in effect, reduced the program from a maximum of 12 sites to four, and completely changed the focus of the program from a large nationwide system to one aimed at a crucial, limited, and realistic objective: Defense of our strategic deterrent.

Third. The third major development—and it is one to which we cannot close our eyes and which we cannot wish away—is the continuing and striking Soviet strategic buildup during the midst of the SALT talks. The Soviets now have

half again as many ICBM's as the United States, with more under construction. Many of those which were built earlier and many of those recently begun are large ICBM's—designed poorly except for a strike against our own ICBM's.

The Soviet Union has more than 25 modern strategic nuclear ballistic missile submarines, similar to our own Polaris submarines. With the number they now have under construction, they will equal the U.S. submarine force within the next 2 or 3 years. This is not a theoretical projection. These boats are already under construction. They are a serious threat to the survivability of our strategic bomber force. More than that, they are further evidence that the Soviets are prepared to lavish large sums on their continuing strategic buildup.

If the strategic arms limitation talks are not successful in producing an agreement in the interests of our national security, then we will have to ask ourselves some very difficult questions about our policy toward strategic weapons. If, in spite of our best efforts, SALT fails, then we must be ready to do whatever is necessary to maintain the credibility of our strategic forces. The Safeguard program, as reduced and amended by the Armed Services Committee, represents the minimum necessary in order for us to be able to respond to the Soviet increase in a timely way.

For these reasons, Mr. President, I strongly urge that the Senate reject the pending amendment.

Mr. STENNIS. I thank the Senator, and I appreciate his response to the chairman's request. He is highly qualified.

Mr. HART. Mr. President, for reasons which I shall discuss shortly, I will again vote to limit expenditures for antiballistic missiles to research and development.

But first, I would like to comment on the fact that for the first time in 3 years the vehicle for such a vote will not be a Cooper-Hart amendment.

Senator COOPER and I continue to share the great hope that there will soon be a strategic arms limitation agreement severely limiting if not banning outright deployment of antiballistic missile systems.

And let me add my voice to his in a plea that Moscow and Washington do all they can to come up with such an agreement promptly. The SALT talks are man's best hope of taking a step back from the nuclear brink, the best hope for stopping a costly and dangerous new escalation of the arms race.

As Senator COOPER has explained, he has decided not to vote against the recommendation of the Senate Armed Services Committee for Safeguard. As do all of us, I respect his judgment; but certainly men with the same goal can differ on how best to achieve that goal.

But again, let me emphasize that our goals do not differ.

My judgment was based on these considerations.

We are not voting on the concept of an antiballistic missile system, but rather on deploying a system called Safeguard.

There are several points on which I remain unconvinced about Safeguard.

I am not convinced that Safeguard will work as advertised: Or that if the system does work, Safeguard will provide a useful defense for our land-based intercontinental ballistic missiles.

I am not convinced that Safeguard is needed to maintain the credibility of our nuclear deterrent, which also includes Polaris submarines and strategic bombers.

In short, I do not agree with the apparent conclusions of the majority of the Senate Armed Services Committee that, absent an arms control agreement, Safeguard "offers the most promise of insuring our deterrent's survivability."

The word "apparent" was chosen with care, for the committee report did not say "Safeguard" offers the most promise; only that antiballistic defense offers the most promise.

That wording could be consistent with those of us who argue that, rather than deploy Safeguard, we should continue research to develop an ABM system which might work.

And also, the committee's findings that our ICBM deterrent "is not yet threatened" and that we should develop a hardpoint ABM defense in case the Soviet threat requires "protection beyond Safeguard" would seem to support our contention that even if Safeguard works, it will provide defense against only a narrow range of weapons, narrow both as to numbers and design.

For that reason, even if a SALT agreement permits deployment of a limited ABM system, I hope this country would not automatically press ahead with Safeguard.

Also, the committee's statement on Safeguard and the Soviet threat is an excellent illustration of how the arms race continues to escalate.

Let me quote from the report:

> The committee notes with concern the continuing increase in the strength of the Soviet Union's ICBM force. At this time last year, testimony was received which placed the number of operational ICBM launchers at over 1,100. Testimony this year raised this figure to over 1,440. Although our land-based deterrent is not yet threatened by this deployment, the continued growth of the Soviet strategic forces while arms limitations talks are underway indicates that attaining the ability to threaten our deterrent may be a Soviet goal.
>
> While this continued quantitative growth in the threat is of concern to the committee, of equal concern is the potential qualitative improvement of Soviet ICBM's.

Not only then is Safeguard to be deployed to meet a potential rather than an existing threat, but deployment is justified on the grounds that the Soviet Union may be seeking to threaten our deterrent. But the report fails to note that our efforts to improve our MIRV missiles could lead Soviet leaders to conclude that the United States seeks to threaten their deterrent.

And so the cycle goes, each side willing to spend more and more on weapons which, in the long run, add nothing to the national security of either, but each side reluctant to take the first step to break the ever-escalating cycle.

The committee also states that authority to deploy Safeguard would enhance "the possibility of a successful agreement" through the Strategic Arms Limitation Talks.

That, of course, is what has become known as the "bargaining chip" argument, and it contends that we must arm to disarm.

History indicates that the opposite is true, that what few arms limitation agreements have been negotiated came as the result of restraint rather than expansion.

And I strongly suspect that the best way to get a no-ABM agreement is to have none deployed. Otherwise, in the name of arms limitation, the tendency will be, at best, to level off at the number already deployed.

We should keep in mind that even a limited ABM system might be expanded into an area defense.

If one side fears the other side is considering such an expansion, it will conclude that the credibility of its deterrent has been undermined. The other side will conclude that a nation which installs an area defense is indeed seeking a first strike capability.

In terms of expense alone, a major escalation of the arms race is to be avoided. But more importantly, if we are ever to halt the run for the nuclear brink, if we are to reverse the race toward oblivion, we should not miss this opportunity to do so.

For all these reasons, then, I remain opposed to deployment of the Safeguard ABM.

In closing, let me return to my original appeal. It is my impression that it will be possible to reach an agreement at SALT, perhaps in the near future. I hope that it will be for zero deployment, but if the agreement permits one or even two ABM sites, that is a long way, both in terms of money and effect on the arms race, from deployment of an area defense. Senator COOPER's contribution to any such agreement will be of the highest order.

A SALT agreement at the lowest possible level would represent a step back from the brink, a sign to people that their leaders are heeding their pleas for peace. Regardless of how we vote on Safeguard, let us all make that goal our own.

The PRESIDING OFFICER. Who yields time?

Mr. HUGHES. Mr. President, I yield to the distinguished Senator from Missouri such time as he may require.

THE SAFEGUARD ABM SYSTEM—AN UNNECESSARY WASTE OF THE TAXPAYERS' MONEY

Mr. SYMINGTON. I thank the able Senator from Iowa.

Mr. President, as my colleagues are well aware, I have opposed the deployment of the Sentinel-Safeguard antiballistic missile system for more than 3 years.

In the course of hearings and debate on this proposed system, except for the claim that it might cure cancer, I have heard almost every conceivable argument for spending billions of the taxpayers dollars on this nuclear maginot line.

First, we were told this system was needed to defend the United States against a possible attack from the Chinese. At the same time we were also told

that it would provide little if any protection against the obviously far greater missile threat from the Soviet Union.

The absurdity of this argument became apparent and the proponents of the ABM then switched to a new rationale to attempt to justify its existence.

The name of the system was changed from Sentinel to Safeguard and its primary mission was changed from area defense to defense of the deterrent; that is, maintaining our second strike capacity. It was argued that its deployment was vitally necessary to protect our Minutemen from the ever-growing Soviet arsenal of SS–9's.

Thus the rationale as well as the mission itself was altered; but the components remained the same as those designed for a different mission in the old Sentinel ABM.

If deployed, Safeguard would still rely on a single missile site radar—MSR—with a small complement of Sprints and Spartans per Minuteman base.

Anyone familiar with how small indeed is the number of defensive missiles in this system could not help, but question the degree of protection it might provide against a possible nuclear attack from the other superpower. Unfortunately, however, the Defense Department refuses to declassify the number of Sprints and Spartans planned for each complex.

It would appear these officials realize that if they do release even approximate numbers, they will substantiate the claims of those who say the system can be easily overwhelmed through very little additional effort on the part of the Soviet Union; hence the entire system is unprecedented waste of money.

Now, and after continued questioning of the effectiveness of Safeguard over the past 2 years, Pentagon witnesses finally admit that Safeguard is not the ultimate defensive system it was originally "cracked up" to be. We are now told that if the Soviet threat continues to increase, we will have to go to another system—Hardsite—the cost of which still remains a mystery.

One cannot help but wonder where and when it will all end.

In addition to the above arguments in support of ABM, we were told—and are still being told—that the Congress had to vote funds for this already obsolete system because the administration needed it as a bargaining chip at the SALT negotiations.

The Senator bought this argument last year by a vote of 52 to 47 and as a result authorized an additional $1.4 billion for continuation of the system at four sites; and this year we are being asked to "ante up" another $1.1 billion in order to stay in the game.

No one hopes more than I for the achievement of a meaningful agreement in the SALT talks—and the sooner the better, so as to halt a spiraling arms race which could well bankrupt this country in terms of more than money.

In this connection, my able colleague from Kentucky was in Helsinki the early part of August, where he had numerous discussions with the U.S. negotiating team at SALT. These discussions apparently convinced him that to reduce the Safeguard ABM request for this year below the four sites recommended by the Armed Services Committee could hinder what he believes is an imminent agreement on defensive weapons at the SALT talks.

With great respect, I visited the negotiators in Vienna last spring, heard the chief negotiator, the able Ambassador Gerard Smith, in his testimony before three committees of the Senate shortly before he went to Helsinki, and have followed to the best of my ability what has been going on in these discussions. I also heard his deputy brief the Senate in recent days.

I have the highest regard for Senator COOPER and sincerely hope he is correct in his prediction about an agreement in the near future. But I do regret that he believes it essential to authorize this additional billion dollars for a worthless system, apparently as a necessity for reaching such an agreement.

To me this is a tragic and additional unnecessary waste of the taxpayers' money, for if no agreement is reached, then the Senate would be authorizing continuation of a system which now, even many within the Defense Department privately admit is a poor allocation of resources if we really need to protect our Minuteman force.

Mr. President, people often say in an all inclusive manner, that the Pentagon would like this system. Let the record show there are many in the Pentagon who have been, and are, thoroughly opposed to said ABM system not only from the standpoint of cost, which they believe could be better expended on other more needed weaponry, but also because they do not believe this system will work.

If Safeguard is indeed a bargaining chip, just how much of a chip is actually needed?

The Congress has already authorized $3.7 billion for Safeguard; and the projected cost of only four sites has already climbed to over $8 billion—already my distinguished colleague from Iowa is talking about $9.5 billion. I wager that by this time next year we will be talking in terms of at least $11 billion.

The amendment of the Senator from Iowa now pending before the Senate recommends reducing funds for ABM frm $1,106,200,000 to $357,600,000. Why is not the authorization of some $357 million for continued research and development on an ABM system a sufficient bargaining chip at SALT, particularly if one considers the rest of our nuclear arsenal?

The Armed Services Committee itself cut back the original request by $161 million—and I respectfully commend my committee for even this small reduction. But at the time this action was announced, I did not hear any hue and cry that the committee had undercut the President's authority, or pulled the rug out from under the U.S. negotiators at Helsinki.

With conditions in this country as they are, do we really need to authorize this additional billion dollars because some believe that it is a chip looking toward a successful arms control agreement with the Soviet Union?

Mr. President, in conclusion I oppose the system, as I have for years on the floor of the Senate, for several reasons.

I have studied Safeguard to the best of my ability and am increasingly certain in my own mind it will not work.

Even some of the proponents have testified it would not affect national security to release the approximate number of Spartans and Sprints at a base; so if we could only get the figures out, we could prove even if it does work, how easily it could be saturated.

Where is the money coming from as the cost increases by the billions?

This country is not equipped psychologically, historically, or traditionally to hide behind any modern technological but totally theoretical maginot line. That is what the French did after they became rich and soft. They enjoyed pleasant living and hid behind their maginot line. Accordingly, France would have been destroyed if it had not been for the entrance into the war of the United States.

I say to my colleagues this afternoon, surely this decision to continue with this military waste has been made. Nevertheless, for the record, who is or will be behind us as we were behind the French?

We know that for all the billions in research we have put up for airplanes, we have not had a single modern fighter since 1954; and the lack of an adequate number of submarines is at least as serious.

One of the reasons we are getting into this character of trap is that we have so many theoretical experts. So we get the arguments while the Soviets have been and are getting the hardware. I challenge anyone to challenge that observation when it comes to our relative position on submarines and fighter planes.

Finally, I do not agree, after studying the matter as a member of the Committee on Foreign Relations, the Committee on Armed Services, and the Joint Atomic Energy Committee, that this is any bargaining chip for the SALT talks. To me rather it is but another escalation in the race which could destroy us all.

Mr. HUGHES. Mr. President, I should like to thank the distinguished Senator from Missouri for the excellent statement he has just made, and to express my appreciation for his continuing concern, which he has always shown, on these matters in committee. He has been one of the leaders in enlightening the people of America on the problems the Senate is now in the midst of discussing today.

I deeply appreciate his comments and his continuing enlightenment for the benefit of us all.

Mr. SYMINGTON. Mr. President, I, in turn, congratulate the distinguished Senator from Iowa for his courage in rowing against the stream of the weaponry items asked for, but which are not needed for our security—and the cost of which is breaking our economic back.

It is for these reasons that I intend to vote for the amendment of the able Senator from Iowa.

Mr. STENNIS. Mr. President, I yield 5 minutes to the Senator from Illinois.

The PRESIDING OFFICER. The Senator from Illinois is recognized for 5 minutes.

Mr. PERCY. Mr. President, let me first indicate my absolute faith and conviction that this administration is intent on finding every possible way to effectuate a reasonable arms limitation at the SALT talks. Those talks are among the most important that the two superpowers have ever carried on.

I am further convinced that we have one of the ablest negotiating teams in Helsinki that has ever represented this country in international negotiations.

Under the able leadership of Ambassador Gerard Smith, this team—backed up by such distinguished men as Dr. Brown, president of Cal Tech and former Secretary of the Air Force and Paul Nitze former Deputy Secretary of Defense—is a very able one. I was deeply impressed with the way they are going about their job, with the grasp they have of every detail of these negotiations, and the backing and support that the team has from the White House, from the Pentagon, and from the State Department. When I met with them in Helsinki—not as recently as the distinguished Senator from Kentucky, but last November—I left feeling that our negotiating powers were in distinguished and able hands.

Second, I am convinced of the sincerity of purpose the Russians now have. They have an objective that they want to achieve. They have experienced the same horrendous expense for the weapons systems that we have seen for so many years, and certainly discussed for the past several months on this floor of authorization bills for sophisticated military systems. They have had the same escalating costs that the distinguished senior Senator from Missouri has just pointed out.

We are speaking of an ABM system. They are just as concerned about the capability of the system for being a real defense against incoming missiles as we are. All we have to have for penetration of such a defensive system such as they have array Moscow is just one more offensive missile than they have defensive.

I think they have become convinced that the senseless, mad race of the nuclear superpowers cannot provide any greater security for their people. I am convinced they are interested in reaching an agreement. Their objective of course is to get the best agreement they can. They will try in every way to get the best bargain possible. They are up against a good team. They are going to realize that they must be realistic and reach an agreement that is enforceable and that can be policed. I think we are nearing the brink of getting such an agreement. We in the Senate have been working toward this end. It has been inspiring to watch the slow but steady progress toward this objective.

I have fought vigorously with the distinguished Senator from Kentucky, the distinguished Senator from Missouri and others against the ABM because I felt there were higher priorities on which we should expend our defense funds. However, I came to the conclusion after we lost that one battle and the Senate authorized deployment of a limited ABM system at Grand Forks and Malmstrom that we had made a decision and that, therefore, once we had lost that battle, that battle should not be fought all over again in an acrimonious atmosphere.

I notified my colleagues at the time that I would not engage the next year in an effort to undercut what the Senate, in its wisdom, had already made a decision on.

I do want to say, together with my esteemed friend, the distinguished Senator from Kentucky, that the Senate Armed Services Committee has performed a great service and has been responsive to changing conditions and circumstances. A strong feeling developed inside the Senate for withdrawing of the existing deployment authorized last year at Whiteman and for the authorized site preparation at Washington. It was our hope that we would not expand the ABM systems, but more or less to try to stand fast by what we had decided before.

Sixty million dollars is provided for research and development of the so-called Hardsite.

Several years ago, I took the position that dollar for dollar, the hardening of our sites would provide more defense for this country than expanding into an extensive ABM system.

I think that decision is a wise one. So, I will vote against the Hughes amendment. I do so because I feel we can reach an arms limitation agreement, effecting both offensive and defensive weapons systems. I do have faith in what the administration is trying to accomplish. I have faith that we can have a successful outcome in this area.

I would also like to comment on the amendment to be offered by the distinguished Senator from Ohio (Sen. SAXBE).

The PRESIDING OFFICER. The time of the Senator has expired.

Mr. STENNIS. Mr. President, I yield 2 additional minutes to the Senator from Illinois.

Mr. PERCY. Mr. President, I have worked with the distinguished Senator from Ohio in many areas, some in agreement and some in disagreement. I would hope, therefore, that he would consider the possibility of withdrawing his amendment. I cannot see what purpose it would serve, although I can understand why it it important to emphasize in colloquy on the floor, some of the points he tries to raise in the amendment.

I do feel, however, that there is a possibility that it would circumscribe, in a sense, the constitutional powers of the Senate, because it requires action by both the House and the Senate, in an area that has been traditionally reserved for the Senate.

The proposed amendment would withdraw and nullify congressionally enacted authorizations and appropriations upon the occurrence of a specific contingency. The occurrence which would trigger the nullification of the congressionally enacted authorizations and appropriations, would be the signing by the Executive of an arms control agreement. In effect, this amendment proposes that the Senate abrogate, in advance, its sole constitutional prerogative to accept or reject a proposed treaty.

The Senate will have the opportunity to pass upon any treaty signed by the executive branch. Should the Senate ratify the treaty, any limitations on U.S. armaments would, upon that ratification, become the law of the land and override prior authority which existed as a result of legislative enactments or otherwise which exceeded the limitations in the ratified treaty. There is, therefore, no need for such action by the Senate at this time. The amendment would serve no useful purpose. I hope the Senator from Ohio will withdraw it but I hope also in discussion on the Senate floor, he will bring out the point he intended to make by introducing the resolution in the first instance.

The PRESIDING OFFICER. Who yields time?

Mr. STENNIS. Mr. President, I yield 2 minutes to the Senator from Minnesota.

The PRESIDING OFFICER. The Senator from Minnesota is recognized for 2 minutes.

Mr. HUMPHREY. Mr. President, I deeply appreciate the 2 minutes that the Senator from Mississippi has yielded to me.

I will get to the point. I think that every Senator knows that I have been doubtful about the ABM. This is a very troublesome matter for all of us. To me, it is very much so because I have grave doubts as to its advocacy. I must say, however, that the one prospect we have of limiting this arms race is, in the beginning, the defensive missiles at the talks that will be extended in Vienna.

I have a very deep commitment to the arms control program which I believe cannot be unilateral.

I feel that I would have to vote against the pending amendment. I say that with great reluctance and heavy heart. I am deeply concerned about this deployment. However, I think the committee and the distinguished chairman of the committee have shown admirable restraint in limiting deployment to two sites.

If we can get agreement on ABM, the amount of money involved in the deployment at the two sites will be well spent. If we cannot get agreement on the ABM, all bets are off.

I tried my best to get an agreement last week on the MIRV. We have not gone that far. We are not at the point of the talks in Helsinki or Vienna. Here we are talking about offensive weapons deployment. However, I have to believe that somehow and somewhere we will arrive at some kind of workable limitation, if not zero limitation, a limitation of the ABM.

I do not want to have my vote or anything I say do anything that would jeopardize that possibility.

The PRESIDING OFFICER. The Senator's time has expired.

Mr. STENNIS. Mr. President, I yield 1 additional minute to the Senator from Minnesota.

The PRESIDING OFFICER. The Senator from Minnesota is recognized for 1 additional minute.

Mr. HUMPHREY. Mr. President, I find myself in support of the Senator from Kentucky. He knows of my profound ad-

miration for him. I think he is a deeply sincere man, totally dedicated to the cause of peace and arms control. I believe in this cause. My judgment would require me on the basis of national security, which I believe is involved in arms control, as well as defense, to vote with the committee and against the amendment.

I thank the Senator for yielding.

Mr. STENNIS. Mr. President, I yield the remaining time I have to the Senator from South Carolina. I am sorry that there is not more time.

Mr. THURMOND. Mr. President, how much time remains?

The PRESIDING OFFICER. One minute.

Mr. THURMOND. Mr. President, the Senate would make a grave error if it approves amendment No. 443 which would terminate the Safeguard ABM program.

This amendment, offered by the distinguished Senator from Iowa (Mr. HUGHES) would knock the feet out from under the American negotiators at the strategic arms limitation talks.

Some critics of the so-called military-industrial complex complain loudly of the supposedly provocative nature of various American programs and priorities. Of all of their widely scattered attacks, those who assert that the Safeguard ballistic missile defense system is a contributing factor in the arms race make the least sense.

Safeguard is and always has been a defensive program. None of its components have any offensive capability. The intent of the Safeguard program is straightforward and understandable to the Soviet Union. The program's primary goal is to protect essential portions of our Nation's strategic deterrent forces in the face of the growing Soviet first strike megatonnage capability.

With curious compassion, critics of this system claim that it threatens the Soviet Union by weakening their strategic forces and thus accelerates the arms race. Those of us who support Safeguard and Department of Defense leaders have never claimed that this program would hamper the Soviet's ability to inflict unacceptable damage on the population of our cities. What we claim for Safeguard is that it would make it impossible for the Soviets to inflict this damage without the certainty that essential portions of our deterrent force would survive to retaliate. Thus Safeguard threatens only Soviet ability to attack us without retaliation. Is this contributing to the arms race?

Mr. President, one might ask what has happened in the last 2 years since the SALT effort began to change the Nation's need for Safeguard.

The answer to that question is that while the United States has been going slow in strategic programs the Soviet Union has accelerated its efforts. Since SALT began the Soviets have increased their intercontinental ballistic missile forces from around 1,000 to around 1,500. The U.S. ICBM force remains about the same, 1,054. Many of the Soviet missiles are the SS–9's while some of the U.S. missiles are old Titans.

Further, borings of holes at present Soviet ICBM sites indicate a further step-up in their ICBM program. This could mean a new type missile or a product improvement of present missiles. In either case, it bodes ill for this Nation.

The Senate should also take note that since the SALT effort began the Soviets have increased their Polaris-type submarine launched ballistic missile boat fleet from around 6 or 7 to about 20.

Finally, it should be clear to the Senate that the ABM program is a vital equation in our defense posture as Soviet military strength accelerates.

To delay or abandon Safeguard would lessen or destroy the effectiveness of a prime curb to the dangers of the arms race. It would also deprive the President of a vital option in dealing with unthinkable but possible situations.

Mr. President, I urge my colleagues to reject this amendment soundly so that the world may know this body fully supports the President in his efforts to deal from a position of strength at SALT.

The PRESIDING OFFICER. The Senator from Iowa has 13 minutes remaining and the Senator from Mississippi has no time remaining.

Mr. HUGHES. Mr. President, I find myself today in a rather strange position with respect to Senators who I have been allied with since I have been in the Senate opposing this particular weapon system, antiballistic missile system, who made strong arguments against it in the past, who today have slipped into neutral and placed all of their chips on a negotiating factor.

There is no longer any debate that the system will not work or that the system will work. After spending 2 years listening to the debate going on about whether it would work or would not work, after hearing it called all sorts of things, such as a platinum-plated electronic slingshot looking for or seeking a mission, I find the only argument remaining is that somehow it is a chip on a table that will never be used even if it could be made to work.

Certainly, the Senator from Iowa prays, along with the distinguished Senator from Minnesota, my distinguished friend, the Senator from Kentucky, and all the others, for the success of these negotiations and hopes that no weapons or antiweapons of this sort will ever need to be used on this earth again, weapons with the destructive capability we all know exists. We must be at the beginning of the end of structuring systems for destroying humanity. One day that beginning will occur on the floor of this Senate, by this body having the fortitude to reject without waiting for a response because there is no stake, and saying to the world, "We are ready to begin to end destruction." I know that day has not yet arrived.

Mr. President, in finality I can only express the hope that it is in the near future. We all share the common belief that there has been enough blood, pain, and agony, destructive capability, wastefulness of the resources of manpower, and degradation of humanity by what we have all been involved in in this last quarter of a century. Let us hope from this point on that we will succeed and that we can begin anew with hope.

Mr. President, I yield back the remainder of my time.

The PRESIDING OFFICER. All time having been yielded back or used, the question is on agreeing en bloc, to the amendments of the Senator from Iowa. The yeas and nays have been ordered, and the clerk will call the roll.

The legislative clerk called the roll.

Mr. JORDAN of Idaho. On this vote I have a pair with the senior Senator from Maryland (Mr. MATHIAS). If he were present, he would vote "yea." If I were at liberty to vote, I would vote "nay." I withhold my vote.

Mr. BYRD of West Virginia. I announce that the Senator from Indiana (Mr. BAYH), the Senator from Oklahoma (Mr. HARRIS), the Senator from Hawaii (Mr. INOUYE), the Senator from North Carolina (Mr. JORDAN), the Senator from South Dakota (Mr. MCGOVERN), the Senator from New Mexico (Mr. MONTOYA), the Senator from Connecticut (Mr. RIBICOFF), the Senator from California (Mr. CRANSTON), and the Senator from Alabama (Mr. SPARKMAN) are necessarily absent.

I further announce that, if present and voting, the Senator from New Mexico (Mr. MONTOYA), the Senator from South Dakota (Mr. MCGOVERN), and the Senator from Indiana (Mr. BAYH) would each vote "yea."

I further announce that, if present and voting, the Senator from North Carolina (Mr. JORDAN) would vote "nay."

Mr. GRIFFIN. I announce that the Senator from Kentucky (Mr. COOK), the Senator from Maryland (Mr. MATHIAS), and the Senator from Iowa (Mr. MILLER) are necessarily absent.

The Senator from New York (Mr. JAVITS) is necessarily absent because of religious observance.

The Senator from South Dakota (Mr. MUNDT) is absent because of illness.

If present and voting, the Senator from Kentucky (Mr. COOK) would vote "nay."

The pair of the Senator from Maryland (Mr. MATHIAS) has been previously announced.

The result was announced—yeas 21, nays 64, as follows:

[No. 237 Leg.]

YEAS—21

Anderson	Hughes	Proxmire
Eagleton	Kennedy	Schweiker
Fulbright	Metcalf	Smith
Gravel	Mondale	Stevenson
Hart	Moss	Symington
Hartke	Muskie	Tunney
Hatfield	Nelson	Williams

NAYS—64

Aiken	Chiles	Hruska
Allen	Church	Humphrey
Allott	Cooper	Jackson
Baker	Cotton	Long
Beall	Curtis	Magnuson
Bellmon	Dole	Mansfield
Bennett	Dominick	McClellan
Bentsen	Eastland	McGee
Bible	Ellender	McIntyre
Boggs	Ervin	Packwood
Brock	Fannin	Pastore
Brooke	Fong	Pearson
Buckley	Gambrell	Pell
Burdick	Goldwater	Percy
Byrd, Va.	Griffin	Randolph
Byrd, W. Va.	Gurney	Roth
Cannon	Hansen	Saxbe
Case	Hollings	Scott

Spong	Taft	Weicker
Stafford	Talmadge	Young
Stennis	Thurmond	
Stevens	Tower	

PRESENT AND GIVING A LIVE PAIR, AS PREVIOUSLY RECORDED—1

Jordan of Idaho, against.

NOT VOTING—14

Bayh	Javits	Montoya
Cook	Jordan, N.C.	Mundt
Cranston	Mathias	Ribicoff
Harris	McGovern	Sparkman
Inouye	Miller	

So Mr. HUGHES' amendment (No. 435) was rejected.

Mr. STENNIS. Mr. President, I move to reconsider the vote whereby the amendment was rejected.

Mr. ERVIN. Mr. President, I move to lay that motion on the table.

The motion to lay on the table was agreed to.

Mr. STENNIS. Mr. President, may we have order?

The PRESIDING OFFICER. The Senate will be in order.

MESSAGES FROM THE PRESIDENT

Messages in writing from the President of the United States, submitting nominations, were communicated to the Senate by Mr. Leonard, one of his secretaries.

EXECUTIVE MESSAGES REFERRED

As in executive session, the Presiding Officer (Mr. BROCK) laid before the Senate messages from the President of the United States submitting sundry nominations, which were referred to the appropriate committees.

(The nominations received today, are printed at the end of Senate proceedings.)

S. 2513—ORDER FOR STAR PRINT

Mr. HARTKE. Mr. President, on September 14, I introduced S. 2513, the Older Americans' Rights Act of 1971. Because of printing errors, three sections of my bill were not included when it was printed. These three sections were the modifications in the age-62 computation point for men, the elimination of the recent work requirement for the disabled, and the establishment of a deductible for eyeglasses, dentures, and hearing aids purchased under the medicare program. Each of these was included in my introductory statement. In addition, a typographical error was made on the date when a self-employment tax was to take effect.

Because of these printing errors, I ask unanimous consent that there be a star print of S. 2513.

The PRESIDING OFFICER (Mr. HUMPHREY). Without objection, it is so ordered.

MILITARY PROCUREMENT AUTHORIZATIONS, 1972

The Senate continued with the consideration of the bill (H.R. 8687) to authorize appropriations during the fiscal year 1972 for procurement of aircraft, missiles, naval vessels, tracked combat vehicles, torpedoes, and other weapons, and research, development, test, and evaluation for the Armed Forces, and to prescribe the authorized personnel strength of the Selected Reserve of each Reserve component of the Armed Forces, and for other purposes.

AMENDMENT NO. 444

The PRESIDING OFFICER (Mr. HUMPHREY). Under the terms of the unanimous-consent agreement, the Chair lays before the Senate Amendment No. 444, proposed by the Senator from Ohio (Mr. SAXBE), which the clerk will state.

The legislative clerk read as follows:

On page 12, between lines 5 and 6, insert the following:

"SEC. 401. (a) The Congress hereby affirms its support for the efforts made thus far by the President of the United States at the Strategic Arms Limitation Talks (SALT) to achieve a treaty limiting deployment in the United States and the Soviet Union of antiballistic missiles as a part of the primary objective of such talks to obtain a treaty for an overall limitation and reduction of all offensive and defensive nuclear weapons. The Congress supports this diplomatic initiative of the President, the purpose of which is to achieve an end to the nuclear arms race by means of a stable nuclear parity based upon the possession of an assured nuclear deterrent by both countries. The Congress strongly urges restraint on the part of both the Governments of the United States and the Soviet Union with regards to the deployment of any additional weapons systems prior to the conclusion of treaties and subsidiary agreements providing for limitations on the deployment of antiballistic missiles and offensive strategic nuclear weapons systems.

"(b) In support of the initiative announced by the President on May 20, 1971, the Congress authorizes the construction, procurement, and deployment of an antiballistic missile system as provided in sections 402, 403, and 404 of this title, subject to the following limitation: That when a treaty between the Soviet Union and the United States is reached at the Strategic Arms Limitation Talks (SALT) and such treaty provides for a limitation on the deployment of less than that authorized by this and prior Acts, then all authority relating to the procurement, construction, and deployment of antiballistic missiles, and parts and components thereof, in excess of the number or other limitation agreed upon at such talks is terminated effective on the date such treaty is signed by officials of both countries."

On page 12, line 6, strike out "SEC. 401" and insert in lieu thereof "SEC. 402".

On page 13, line 3, strike out "SEC. 402" and insert in lieu thereof "SEC. 403".

On page 13, line 15, strike out "SEC. 403" and insert in lieu therof "SEC. 404".

Mr. SAXBE. Mr. President, I wish to advise the Members of the Senate that it is my intention very shortly to ask unanimous consent to withdraw this amendment, and that there will not be a vote. Before I do so——

Mr. STENNIS. Mr. President, may we have it quiet?

The PRESIDING OFFICER. The Senate will be in order. All conversation will cease. The Senator from Ohio will withhold until order is restored.

The Senator from Ohio may proceed.

Mr. SAXBE. Mr. President, we have indicated by our vote here today, myself among others, that we accept the argument of the Senator from Kentucky (Mr. COOPER) and other Senators who have confidence that the SALT talks are progressing, and that we are willing to proceed in accordance with last year's vote and develop the ABM system for the purpose of negotiating in Helsinki.

In other words, like Don Quixote, we are making a helmet that we expect to destroy with one stroke of the sword.

Those of us who had little confidence in the effectiveness of the ABM have gone along reluctantly with that view, because we believe there is a possibility that it could lead to world disarmament, not only upon defensive weapons, but upon offensive weapons as well; and, as the Senator now occupying the chair (Mr. HUMPHREY) stated on the floor earlier, even though we do it reluctantly, we want to strengthen the hand of those negotiators.

I offered this amendment together with the Senator from Iowa with the thought that it would, by expressing confidence in those negotiators and in the President and his actions, be helpful in the negotiations. That was the first idea. The second idea was to show the good faith of the Congress of the United States, both the Senate and the House of Representatives, and that we were prepared immediately to seek the construction of these facilities, which is already beginning.

I felt that it was acceptable and would be accepted when I submitted the amendment, though in fairness there was no indication on the part of the committee chairman that it would be accepted, nor did I offer the amendment in committee.

But then we added in the provision that immediately when the signatures were put on this treaty, facilities in excess of those agreed to in any SALT talk treaty would be immediately stopped.

I believe that would save a tremendous amount of money, in fact billions of dollars. The administration has seen fit not to look favorably upon it. The members of the Armed Services Committee with whom I have talked are generally in opposition. There are those whose opinions I respect very much who feel that it would be an embarrassment to those engaging in the SALT talks. There are others who think the House of Representatives should have no part in voting upon such an amendment, and there are those who feel that it raises grave constitutional problems.

I think all of these arguments are specious. However, furthering the attitude that we wish well to the SALT talks, to the extent that we are willing to spend $8 billion in setting up this straw man that we are going to knock down, we hope, I am asking unanimous consent at this time to withdraw the amendment. I ask unanimous consent, I might add, because, due to the time limitation previously agreed upon, I believe it requires unanimous consent to do so.

The PRESIDING OFFICER. The Senator is correct. Is there objection to the request of the Senator from Ohio? The Chair hears none, and it is so ordered. The amendment is withdrawn.

Mr. STENNIS. Mr. President, may I say to my colleague from Ohio that I think he has really rendered a service here in preparing this amendment and bringing it before the Senate. Of course, having studied it mighty closely, I can-

not support it; and I thank him for withdrawing it.

Mr. SAXBE. Mr. President, I might say, on withdrawing the amendment, that if the SALT talks are successful, I, together with others who are interested, serve notice that on the next day we are going to ask that such action be taken by the Senate before they find another place for the $8 billion.

Mr. THURMOND. Mr. President, the pending amendment, No. 444, offered by the distinguished Senator from Ohio (Mr. SAXBE) and the distinguished Senator from Iowa, (Mr. HUGHES) is an unnecessary amendment and might weaken the hand of the President in negotiating a sound agreement at the strategic arms limitation talks.

Simply stated, this amendment would terminate any authority for the ABM provided for in this bill in excess of the number or limitations agreed upon at SALT.

At first glance this proposal may appear to be a logical and reasonable proposal. The effective time under the amendment would be the date such treaty is signed by officials of both countries.

On the other hand, the amendment seems to be saying the Senate does not trust the executive branch to carry out any agreement signed at SALT. Therefore, the Congress is attaching this amendment to the bill before any agreement is made so that once signed the terms of the agreement will be automatic.

Mr. President, this approach strikes me as picturing the Senate as being so anxious for any agreement at SALT that we will approve it before it is submitted to the Senate for ratification.

Passage of this amendment would in effect negate the duty of the Senate in examining the SALT agreement and exercising its wisdom through the treaty ratification process.

While I have faith in the administration as it continues negotiation at SALT, it does not seem wise for the Senate to appear so anxious to get an agreement with the Soviets that we will rubberstamp it ahead of time.

If the Soviet leaders feel President Nixon is under great pressure from the Congress to negotiate an agreement then they will not be inclined to yield to any degree on the remaining points.

Mr. President, the (a) section of this amendment merely supports President Nixon in his efforts at SALT. If the Senate wishes to go on record to this degree, I believe the Members of this body would be agreeable.

However, I do not believe the Senate should agree today to shut off development of the U.S. ABM until any treaty is not only signed but is submitted to the Senate and ratified.

At that time the ratification of the agreement will be sufficient authority for the President to take action as the Chief Executive to bring our ABM program into line with any SALT provisions.

The PRESIDING OFFICER. What is the will of the Senate?

Mr. STENNIS. Mr. President, a word about tomorrow. Whatever the plans may be for Friday, let me emphasize that we have some highly important votes tomorrow already agreed upon. They are back to back. The time will be controlled. One is a question of the tank, and the proposal is to virtually take it out of the bill. It is a highly important matter.

Then we have the Mansfield amendment again. Whatever side one is on, it is an important, far-reaching policy question.

I believe we can dispose of both those amendments, perhaps with less debate than is now scheduled.

The chrome ore matter is back. The Senate already passed on that once, but it is back in another form.

We disposed of a great deal today, and this shows what we can do when we have agreements.

AMENDMENT NO. 445

Mr. BYRD of West Virginia. Mr. President, I ask that the Chair lay before the Senate and make the pending question the Eagleton amendment, No. 445, with the understanding that no time thereon shall begin to run today.

The PRESIDING OFFICER. Without objection, time will not run against the amendment today.

The amendment will be stated.

The legislative clerk read as follows:

On page 9, line 8, strike out "$1,818,256,000" and insert in lieu thereof "$1,782,956,000".

On page 10, between lines 4 and 5, insert the following new section:

"SEC. 203. Notwithstanding any other provision of law, not more than $27,500,000 of the funds authorized to be appropriated by this Act may be used for research, development, test, and evaluation purposes in connection with the XM-803 (formerly MBT-70) tank during the fiscal year beginning July 1, 1971."

Mr. BYRD of West Virginia. Mr. President, the distinguished junior Senator from Missouri (Mr. EAGLETON) has asked me to request the yeas and nays on this amendment, and I do so at this time.

The yeas and nays were ordered.

ORDER FOR YEAS AND NAYS ON AMENDMENT NO. 437

Mr. BYRD of West Virginia. Mr. President, I ask unanimous consent that it be in order to order the yeas and nays on the amendment by the Senator from Montana (Mr. MANSFIELD), No. 437, at this time.

The PRESIDING OFFICER. Is there objection? The Chair hears none, and it is so ordered.

Mr. BYRD of West Virginia. Mr. President, I ask for the yeas and nays on the Mansfield amendment.

The yeas and nays were ordered.

ORDER FOR YEAS AND NAYS ON SENATE JOINT RESOLUTION 157

Mr. BYRD of West Virginia. Mr. President, I ask unanimous consent that it be in order at this time to order the yeas and nays on Senate Joint Resolution 157, the school lunch bill.

The PRESIDING OFFICER. Is there objection? The Chair hears none, and it is so ordered.

Mr. BYRD of West Virginia. Mr. President, I ask for the yeas and nays on the joint resolution.

The yeas and nays were ordered.

Mr. BYRD of West Virginia. Mr. President, I ask unanimous consent—I have been authorized to do so by the distinguished majority leader, after consulting with the appropriate parties—that time on Senate Joint Resolution 157, the school lunch bill, be limited to 2 hours, to be equally divided between the majority leader and the minority leader or their designees; provided, further, that time on any amendment thereto be limited to 30 minutes, the time to be equally divided and controlled between the mover of the amendment in the second degree and the manager of the bill.

Mr. GOLDWATER. Mr. President, will the Senator yield?

Mr. BYRD of West Virginia. I yield.

Mr. GOLDWATER. When does the Senator intend to call up this resolution?

Mr. BYRD of West Virginia. It would be on Friday.

Mr. GOLDWATER. Is there any other business of importance on Friday?

Mr. BYRD of West Virginia. At this time, it is impossible to say.

Mr. MANSFIELD. That is all we know of at the present time, although we are in touch with the distinguished Senator from North Carolina (Mr. ERVIN) to see whether a bill reported by the Committee on the Judiciary could be brought up. But we will know more about that tomorrow afternoon. As soon as we know, the Senate will be informed.

Mr. GOLDWATER. I thank the Senator.

The PRESIDING OFFICER. Did the Chair correctly understand the Senator from West Virginia to say, "the mover of the amendment in the second degree," with the time of 30 minutes to be equally divided, or should it be "the amendment in the first degree"?

Mr. BYRD of West Virginia. I ask that time on any amendment to the joint resolution be limited to 30 minutes, to be equally divided between the mover of the amendment in the first degree and the manager of the resolution. I thank the Chair.

Mr. STENNIS. Reserving the right to object, Mr. President, what bill is that?

Mr. BYRD of West Virginia. The school lunch legislation.

The PRESIDING OFFICER. Without objection, it is so ordered.

Mr. BYRD of West Virginia. I also ask unanimous consent that time on any amendment to an amendment be limited to 20 minutes, to be equally divided between the mover of the amendment in the second degree and the manager of the resolution.

The PRESIDING OFFICER. Without objection, it is so ordered.

The unanimous-consent agreement is as follows:

UNANIMOUS-CONSENT AGREEMENT

Ordered, That, on Friday, October 1, 1971, after the conclusion of routine morning business, the unfinished business be temporarily laid aside and the Senate proceed to the consideration of S. J. Res. 157, a school lunch measure, until action on such resolution is completed.

Provided, That debate on S. J. Res. 157 be

limited to 2 hours to be equally divided and controlled respectively by the Majority and Minority Leaders or their designees. Provided further that debate on any amendment to the resolution be limited to 30 minutes to be equally divided and controlled by the mover of the amendment and the manager of the resolution, and that debate on any amendments to an amendment be limited to 20 minutes to be equally divided and controlled by the mover thereof and the manager of the resolution. (September 29, 1971)

ORDER FOR ADJOURNMENT FROM TOMORROW UNTIL 9 A.M. FRIDAY, OCTOBER 1, 1971

Mr. BYRD of West Virginia. Mr. President, I ask unanimous consent that when the Senate completes its business tomorrow, it stand in adjournment until 9 a.m. on Friday next.

The PRESIDING OFFICER. Is there objection? The Chair hears none, and it is so ordered.

ORDER FOR TRANSACTION OF ROUTINE MORNING BUSINESS AND FOR CONSIDERATION OF SCHOOL LUNCH MEASURE ON FRIDAY

Mr. BYRD of West Virginia. Mr. President, I ask unanimous consent that on Friday, following the recognition of the two leaders under the standing order, or upon the completion of any orders for recognition of Senators, if there be such orders, there be a period for the transaction of routine morning business, for not to exceed 15 minutes, with statements therein limited to 3 minutes; that at the conclusion of the routine morning business, the unfinished business, the military procurement bill, be temporarily laid aside and the Senate proceed to the consideration of Senate Joint Resolution 157, the school lunch program, and that that measure remain before the Senate until it is disposed of.

The PRESIDING OFFICER. Is there objection? The Chair hears none, and it is so ordered.

Mr. BYRD of West Virginia. I thank the Chair.

FEDERAL WATER POLLUTION CONTROL ACT

Mr. RANDOLPH. Mr. President, I call up a bill, which was reported earlier today, and ask for its immediate consideration.

The PRESIDING OFFICER. The bill will be stated by title.

The assistant legislative clerk read as follows:

A bill (S. 2613) to extend the Federal Water Pollution Control Act, as amended, for one month.

The PRESIDING OFFICER. Is there objection to the present consideration of the bill?

There being no objection, the Senate proceeded to consider the bill.

Mr. RANDOLPH. Mr. President, the Committee on Public Works has reported unanimously this 1-month extension of the Federal Water Pollution Control Act. I would advise my colleagues that the authorizations contained in the Federal Water Pollution Control Act as amended earlier this year expire on September 30, 1971.

Our committee is nearing the completion of the markup on pending legislation which would extend these authorizations, but final action will not be taken before October 1.

The distinguished Senator from Kentucky (Mr. COOPER), the ranking minority member of the committee, is in the Chamber. We are just attempting at this time to allow Congress to work its will in a major revision of the proposed legislation, but we do not want to break the continuity of the present control program, and that is the reason why we bring the measure today. It is a matter of timing.

Mr. BYRD of West Virginia. Mr. President, will the Senator yield?

Mr. RANDOLPH. I yield.

Mr. BYRD of West Virginia. Do I correctly understand that this matter has been cleared on the other side of the aisle?

Mr. RANDOLPH. Yes, it has. Senator COOPER is here, and I believe he has discussed it with the leadership. That is my understanding. I have had the privilege of discussing it with Senator MANSFIELD and Senator BYRD.

The PRESIDING OFFICER. The bill is open to amendment. If there be no amendment to be proposed, the question is on the engrossment and third reading of the bill.

The bill (S. 2613) was ordered to be engrossed for a third reading, was read the third time, and passed, as follows:

S. 2613

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled, That—

SECTION 1. Section 5(n) of the Federal Water Pollution Control Act, as amended (33 U.S.C. 466 et seq), is amended by inserting after the first sentence thereof the following: "There is authorized to be appropriated not to exceed $7,000,000 for the period ending October 31, 1971, in addition to funds made available under Public Law 92-50."

SEC. 2. The funds authorized to be appropriated in section 6(e) of the Federal Water Pollution Control Act, as amended (33 U.S.C. 466 et seq) for the fiscal year ending June 30, 1971, shall remain available until October 31, 1971.

SEC. 3. Section 7(a) of the Federal Water Pollution Control Act, as amended (33 U.S.C. 466 et seq) is amended by striking "and for the three month period ending September 30, 1971, $2,500,000." And inserting in lieu thereof "and for the four month period ending October 31, 1971, $4,000,000."

SEC. 4. The second sentence of section 8 (d) of the Federal Water Pollution Control Act as amended (33 U.S.C. 466 et seq) is amended by striking "$500,000,000 for the three-month period ending September 30, 1971." and inserting in lieu thereof "$650,000,000 for the four-month period ending October 31, 1971."

Mr. RANDOLPH. I move to reconsider the vote by which the bill was passed.

Mr. BYRD of West Virginia. I move to lay that motion on the table.

The motion to lay on the table was agreed to.

CONGRATULATIONS TO THE PRESIDENT PRO TEMPORE

Mr. MAGNUSON. Mr. President, I would like to join my colleagues in congratulating the distinguished Senator from Louisiana, the President pro tempore and chairman of the Senate Appropriations Committee, on the occasion of his 81st birthday.

When Congress passed the biggest Federal education bill in history this year, one of its biggest supporters was Senator ALLEN J. ELLENDER, the President pro tempore. It was no surprise to see him backing this $5 billion program—despite his great concern for the Federal deficit. Mr. ELLENDER—who had to do without some of the formal schooling that other children enjoyed—has been a staunch supporter of education since his days in the Louisiana Legislature. He has demonstrated he is ready to make bold cuts in other areas to find funds for the proper schooling of American children.

While he was a member of the Senate Committee on Labor and Public Welfare, Senator ELLENDER teamed up with the late Senator Robert Taft to draft the education finance bill of 1939. That was the first elementary and secondary education bill to pass the Senate in the current century. That bill failed in the House, but many of its provisions were later incorporated into other congressional education acts. Senator ELLENDER also helped pull the Congress together in 1965 to pass this Nation's first major school aid bill.

In 1946 he made a historic contribution to the welfare of American students by coauthoring the school lunch bill. This has turned into one of the finest Federal-State programs in our history and Senator ELLENDER has supported its growth for a quarter of a century. This month, when problems arose in the administration of the school lunches, Senator ELLENDER assured the Agriculture Committee that if money is the problem, he will urge the Appropriations Committee to approve sufficient funds to provide free and low-cost lunches to needy students throughout the Nation.

Senator ELLENDER has shown the same kind of interest in the school breakfast program.

Earlier this year, he stepped in and rescued 16 States from impending cutbacks in their adult education programs. When the administration came up with a new formula for distributing adult education funds, the Senator from Louisiana noted that more than a dozen States would suffer serious losses in their allocations. To avoid this he had the appropriations bill amended to insure that no State would receive less money this year than in the past.

This summer, Senator ELLENDER used his influence on the Appropriations Committee to step up the growth of the Nation's sea grant college program. The sea-grant program is another very promising cooperative effort between the State and Federal Governments. As Senator ELLENDER said recently, it promises to provide the same research benefits in our marine and water resources as the land grant colleges provided for agriculture.

Senator ELLENDER's backing of the sea grant program is another indication of his deep interest in the education of American youth.

Senator ELLENDER has an enviable

career, and I am pleased and happy to join my colleagues to commend him on this special occasion. Happy birthday, ALLEN.

NO-FAULT AUTOMOBILE INSURANCE

Mr. MAGNUSON. Mr. President, the Senate Commerce Committee has just completed lengthy hearings on the subject of automobile insurance. In those hearings divergent views were expressed about the adequacy of the present system and the path to reform which should be followed. As the Senate Commerce Committee begins executive consideration of Federal no-fault proposals, I hope my colleagues will study the Department of Transportation's report on no-fault insurance which Congress commissioned and hope they study the debate on auto insurance reform which is being waged at the State and national level. In pursuing my own study of this complex subject, I found the article by Ann McFeatters which appeared in the Washington Daily News, June 21, 1971, to be very illuminating.

Mr. President, I ask unanimous consent that the article by Mrs. McFeatters be printed in the RECORD at this point.

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

COSTS TO COMPANIES, DRIVERS SKYROCKET—DEBATE OVER NO-FAULT INSURANCE

(By Ann McFeatters)

Fault or no fault? That is the question that preoccupies congress, the auto insurance industry and owners of the nation's 108 million cars.

The industry today finds itself in dissarray. Costs to both industry and owners have skyrocketed. Auto owners with good driving records find their premiums sharply increased or their policies canceled for seemingly arbitrary reasons. And the public is furious.

The most far-reaching remedy offered so far is "no-fault" insurance, whereby the insured owner's own company would pay limited bodily injury and death claims no matter who was at fault in an accident.

Proponents of no-fault argue it would result in more prompt and equitable settlements, save money for both insurors and the insured by minimizing court suits and legal fees and thus hold down premium costs.

(No-fault auto insurance to cover property damage also has been suggested. But this involves less of a problem since only 43 per cent of what accident victims lose in medical bills and lost wages is paid by insurance today while 83 per cent of property damage is paid.)

Champions of the present adversary system, which makes the driver who caused the accident or his insurance company liable for claims, are bitterly opposed to the national no-fault plan. It was proposed by Sens. Philip Hart, D-Mich., Warren Magnuson, D-Wash. and Rep. John Moss, D-Calif.

Under the no-fault plan, for instance, an accident victim injured by a drunken driver could sue only if he suffered "catastrophic harm" of 70 per cent or more permanent disability. Here, in for and against form, is the way the argument rages:

Against: No-fault would deprive most victims of the right to claim from the driver at fault not only out-of-pocket expenses but damages for pain and suffering and loss of future income.

For: True. But filing suit doesn't mean a judgment will be won. Or if it is, that it will be adequtae or can be collected. The person at fault may be uninsured and penniless.

In half the states 20 per cent or more of the car owners have no insurance.

And many of the insured owners have policies paying only $20,000 maximum per accident—which in cases of multiple passenger injuries leaves much of the expense uncovered and nothing for pain and suffering.

HIGH COURT RULING

Sixty-four per cent of the 62 million families earn less than $15,000 a year. So it is often heard to collect the difference between the maximum an insurance policy pays and the amount of damage. And two recent Supreme Court decisions have held a person at fault in an accident may file a federal bankruptcy petition and be absolved of financial responsibility in an accident and apply for another driver's license. This boosts the incentive for the poor person to drive without expensive insurance.

Under today's system only half the victims recover damages in accidents. And those with the greatest injuries are the least likely to get anything for pain and suffering. Furthermore, payment is delayed by legal maneuverings and from 13 to 50 per cent of what damages are recovered are eaten up by lawyers fees—27 per cent is the average.

Under no-fault, the payment of all medical, hospital and rehabilitation costs, for less if necessary, would be assured without waiting for the vagaries of court action.

Against: Today the victim of a disability resulting from an auto crash may sue for loss of earnings over his life expectancy. But under no-fault, he's get only 85 per cent of his salary for months.

For: He'd get 85 per cent because the insurance benefit in lieu of salary is not taxable. Furthermore, with this aid for three years, plus all medical and rehabilitation expenses paid, most accident victims should be able to return to a good job.

POOR RECOVERY RECORD

Conversely, the record of recovery in court is not bright. A Department of Transportation study shows the average loss in permanent total disability cases is $78,000 including lost future earnings—but the average innocent victim collects only $12,556.

The DOT study also shows under the present system that victims of serious injuries costing $25,000 or more recover only 12 to 33 per cent of their actual losses. The less serious the injury, the more likely damages will be paid since insurance companies often pay such claims to avoid suits.

Against: Under no-fault, the innocent victim would have to use whatever medical insurance coverage he had to help pay his medical expenses, which could exhaust the limit of his major medical insurance coverage.

For: That's true. It is part of the no-fault plan to let the most efficient insurance system take care of as much of the expense as possible. This procedure would also help cut down on the ever-rising overhead of the auto companies, which raise rates to keep ahead of costs. If the victim had no medical-hospital insurance, however, his auto policy would pay all his bills.

Against: No-fault insurance would be like workman's compensation. It takes away the right to sue in return for assured payments. But people are angry with the little they get.

For: No-fault would not be the same as workman's compensation, which pays low benefits because employers pay the premiums. No-fault would assure victims of adequate benefits.

Against: Under no-fault even a drunken driver who caused an accident would be paid by his own insurance company for medical expenses, lost wages, or, if he died up to $30,000 would go to his estate. He should be punished rather than "rewarded."

For: The drunken driver and all other drivers at fault are subject to prosecution by authorities under the law. The objective of insurance is not to punish but to compensate the injured driver and his family. Yet the DOT study showed that of 513,098 persons hurt or killed in accidents, 280,015 got nothing because they were at fault or there was nobody to sue.

Against: While agreeing change is necessary, the American Trial Lawyers Association—representing more than 25,000 lawyers, law professors and judges recommends as alternatives to no-fault a crackdown on drunken drivers or a national health insurance program, preserving the present liability system.

For: Say staff lawyers for Sen. Hart: "The idea that the present liability system gives everyone what he deserves is a myth. The lawyers and insurance companies continue to push the system because they are the financial middlemen.

"But why should Americans have to pay $14.4 billion in premiums, out of what $5.5 billion goes for insurance agents and advertising and $1.50 billion for lawyers and court fees, and get back only $7.4 billion in benefits?"

POOR SUFFER MOST

Under the present system the poor suffer most, these Hart aides say. Studies show auto accident victims with incomes of less than $10,000 get "substantially" less for injuries from the present system than do victims with larger incomes.

Against: President Nixon advocates reform but opposes a national no-fault plan, urging instead that the states experiment with no-fault plans of their own.

For: Joseph Clayman, administration director of the industrial Union Department, AFL–CIO, says turning the problem over to state legislatures would put it "in the hands of men with a vested interest in the present system." Lawyers and insurance men make up a significant percentage of state legislators.

Against: Massachusetts is proof national no-fault isn't needed. It already has adopted a limited no-fault plan which bans court suits unless $2,000 or more in bodily injury is involved. Gov. Francis Sargent says it has lessened Court jams and improved the financial health of insurance companies. Florida soon will introduce a limited fault with $5,000 for personal injuries. Delaware also has a plan coming.

For: Aides to Sen. Hart say these are "phony" plans amounting to only an "overlay" on the present liability system. A plan labeled no-fault in Delaware does not eliminate court suits and therefore deceives the public.

Mr. COTTON. Mr. President, will the Senator from Washington yield for a question?

Mr. MAGNUSON. I yield.

Mr. COTTON. On this no-fault insurance, do I correctly understand that the committee will be proceeding to act on it and that permission was granted for——

Mr. MAGNUSON. Further hearings.

Mr. COTTON. Further hearings?

Mr. MAGNUSON. Yes. There will be hearings within the next 2 weeks. The Senator from Tennessee and the Senator from Kentucky submitted a letter to that effect the other day, and we said that is all right.

Mr. COTTON. That will be done before final action is taken?

Mr. MAGNUSON. Yes.

Mr. COTTON. I thank the Senator from Washington very much.

AWARD OF THE AMERICAN CANCER SOCIETY TO MRS. ALBERT D. LASKER

Mr. MAGNUSON. Mr. President, in early June, our former President, Lyndon B. Johnson, presented the Alfred Sloan, Jr., Memorial Award of the American Cancer Society to a great American, Mrs. Albert D. Lasker.

To all Americans engaged in medical research and medical journalism, the name of Mary Lasker stands out as a guiding force. She has devoted the past 30 years to philanthropic efforts in medical research, public health, and human welfare. Since 1944, through the Albert and Mary Lasker Foundation, awards have been given annually to honor and encourage physicians, scientists, and public health officials for outstanding achievement in the field of medical research and public health administration in the fight against the major diseases. Since 1950, the foundation has given medical journalism awards for outstanding reporting on medical research and public health programs in newspaper, magazine, and television fields.

As we sit in this chamber today and ponder the health research legislation which we have produced over the past 20 years, we must acknowledge that Mary Lasker has been and continues to be one of our most important supporters. She will always be an inspiration to us in our quest for a healthy people.

Mr. President, I ask unanimous consent that the remarks of President Lyndon B. Johnson and the response of Mrs. Albert D. Lasker upon presentation of the Alfred P. Sloan, Jr., Memorial Award to Mrs. Lasker, be printed in the RECORD.

There being no objection, the remarks were ordered to be printed in the RECORD, as follows:

REMARKS OF THE HONORABLE LYNDON BAINES JOHNSON, 37TH PRESIDENT OF THE UNITED STATES

Chairman Rockefeller, Mrs. Rockefeller, Mrs. Lasker, Co-Chairman Schmidt, my fellow Americans.

"Humanist, philanthropist, activist—Mary Lasker has inspired understanding and productive legislation which has improved the lot of all mankind. In medical research, in adding grace and beauty to our environment, and in exhorting her fellow citizens to rally to the cause of progress, she has made a lasting imprint on the quality of life in this country. She has led her President and the Congress to greater heights for justice for her people and for beauty for her land."

I wrote those words on my last day in office, January 20, 1969, to accompany the citation and presentation of this nation's highest civilan award, the Medal of Freedom, which I presented to Mary Lasker.

It was the last official act of mine in the presidency and it was one of my proudest.

Tonight I have come across the land to the City of New York to present Mary Lasker with another award. I have come because I want to do everything that I can to pay tribute to this most remarkable woman. I have come because even a Medal of Freedom cannot pay back what Mary Lasker has given me and the people of America.

Most of us as we pass through life engage in some introspection from time to time of what we have done and what we are doing. We ask ourselves what have we done in our lifetime to justify our mothers bringing us into this world. We ask what we have done in return for the return of the love and the effort that has been spent on us by our parents and by our teachers.

Always that nagging question is there with us. Have I done enough? I know that in forty years of trying, I have never been satisfied.

I believe, as I believe you believe, Mary Lasker has a right to be satisfied. I believe that she has done enough for the poor, aged and the sick. Few women in this country have been so successful in so many fields. A stimulating conversationalist with a deep knowledge of a variety of subjects, she is a gracious hostess, an art expert, a philanthropist, a conservationist, an outstanding business woman. But all of those accomplishments do not add up to the woman that I know Mary Lasker to be.

What makes Mary Lasker unique is her burning desire every moment of her life to leave this world a better place than she found it. It is her selflessness that makes her stand out.

Every day that I have know her, she is busy trying to drive disease underground. Every day she tries to help the entire medical community take a step forward in its efforts to find cures for cancer and heart disease and stroke.

If there is anyone who has done more for legislation in that field than Mary, I don't know him. That is why we are all here tonight to honor her. That is why I said she is one of the few persons I have met who could truthfully say to herself that she has done enough.

Despite all that has been said about Mary Lasker tonight, despite all her accomplishments, it may be that her greatest contribution is yet to come. It may be that she will be remembered most for being in the forefront of the movement to establish a national concentrated single agency to attack cancer and to cure cancer for all Americans.

If she is successful, I promise you that I am going to come all the way back to New York some day and help honor her again. I can't think of a more important item on America's long list of priorities tonight than the national conquest of cancer and I can't think of a single person that is more likely to conquest it than Mary.

As I read that line, I thought of an old story that some of you may have heard, but I thought it only came from Texas.

One time one of our popular Baptist preachers had a call from a internal revenue agent. He said, "I was just looking over the return of Mr. X and I see where he said on his return that he gave your Baptist church a thousand dollars last year. I just wanted to confirm it."

There was a long hesitancy. He could hear some deep breathing from the pastor on the phone. And finally he said, "Well, he did or he will."

I don't know really what is in the test tube in the laboratory. I listened to Dr. Holland with great interest. Mary may have already conquered the cancer problem, but if she hasn't, she will.

I have always believed that every child in this country has the right to all the education that he can take. I also believe that every person has the right to all the health care that an enlightened nation can provide. Mary Lasker is leading the fight in this country for both and I predict that any bill that comes out of Congress in the conquest of cancer will bear her imprint all across its forehead.

So tonight with a great deal of pleasure on behalf of Mrs. Johnson and myself I present the American Cancer Society Award, the Alfred P. Sloan Memorial Award to Mary Lasker. The award is for what she has already done, but you can rest assured that in my judgement this is just the beginning.

RESPONSE OF MRS. ALBERT D. LASKER

Thank you, Mr. President, for your generosity to me and thank you for your support in cancer research always, when you were in the Senate and when you were in the White House. Thank you and Lady Bird for coming here tonight to lend your strength towards the conquest of cancer.

Thank you, Benno Schmidt, Laurance Rockefeller, Paul Williams, and everyone in this room for your courageous fight against cancer.

Now I am going to read you a column by Ann Landers which appeared in out-of-town newspapers a few weeks ago, somewhat amended by me.

Here it is.

Dear friends, if you want to be part of an effort that may save millions of lives, maybe your own, stay with me. Who among us has not lost a loved one to cancer? Is there a single person in my audience so lucky that his life has not been changed in some way by this cruel disease? More Americans died of cancer in 1969 than were killed in four years of World War II. Of the 200 million Americans alive today, 50 million will develop cancer, and approximately 34 million will die of it unless we find preventions and new cures. Cancer claims more lives of more children under fifteen years of age than any other illness.

How many of us have asked the question, "If this great country of ours can put a man on the moon, why can't we find a cure for cancer?" Well, one reason is that we have never launched a big enough national campaign, a real united effort against this killer. Another reason is money. The funds designated for medical research in America are inadequate. The lion's share of the tax dollar goes to military defense.

Soon, probably tomorrow, a bill will come before the United States Senate, at least before a Senate committee, which calls for the establishment of a National Cancer Authority. This bill is sponsored by Senator Kennedy, Senator Javits, and other senators. A somewhat similar bill will be introduced which will be supported by President Nixon and others so we have hopes that a strong bill will emerge soon from the committee.

The proposed national cancer authority or cancer cure bill would be an agency similar to NASA, which put men on the moon. This conquest of cancer bill demands the highest priority to be given to devise better methods of prevention, diagnosis, and cure of cancer at the earliest possible date.

Today, you here have the opportunity to be part of the mightiest offensive against a single disease in the history of our country.

If enough citizens let their senators and congressmen know that they want cancer conquered, this bill will pass the Senate and the House and be signed by the President. I urge each of you who hears me tonight to write to two senators and congressmen at once, or better yet send telegrams. Your message need consist of only four words—vote to conquer cancer, and sign your name.

No one can do everything, but each of us here can do something more. We can notify Congress of our wishes and we can give to the American Cancer Society.

It is entirely possible that your resolve tonight could reshape the lives of millions. Let's get going. God bless you and thank you.

RECENT ADDRESS BY SENATOR RIBICOFF ON EAST-WEST TRADE

Mr. MAGNUSON. Mr. President, in a remarkably clearsighted and penetrating speech, the distinguished senior Senator from Connecticut (Mr. RIBICOFF) addressed the Management Center of Europe-Annual East-West Trade Con-

ference in Budapest, Hungary, on June 15, 1971.

In his speech Senator RIBICOFF drew attention to the fact that while economics is increasingly becoming the dominant factor in relations among the nations of the world, the United States persists in thinking in cold war terms, in concentrating on political and military aspects of international relations. He cautions both the countries of the East and West that it is time to wake up to the fact that "while politicians and diplomats still argue over the same old tired political issues, businessmen and bankers are rearranging the basic nature of relations between peoples and states."

The nations of the world are becoming more economically dependent on each other. Yet, if both the countries of East and West are to be able to greatly expand trade, the formidable barriers impeding trade and commerce between East and West must first be overcome. Great differences exist between the operations of market and nonmarket economies. In order to achieve better mutual understanding of our different systems, Senator RIBICOFF has proposed that a new program of exchanges be established between the countries of the East and the United States. A new body of trained men would be created having the expertise to develop trade and investment opportunities now being lost from lack of knowledge and understanding of the operation of the different economies. Increased contact and cooperation via this program would establish another means to further advance the goal of peaceful coexistence between East and West.

As a longtime proponent of East-West trade, I am pleased to recommend Senator RIBICOFF's timely remarks to the attention of the Senator and the American public.

Mr. President, I ask unanimous consent that the recent address by the distinguished senior Senator from Connecticut be printed in the RECORD.

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

Most men in political life who started their careers in government in the 1940's have focused their attention on the political and military aspects of foreign problems. This should come as no great surprise given the military conflicts and feverish diplomatic activities of this turbulent period. Our view of the world, and of our own countries' destinies was shaped in an era when giant men moved across the stage of history.

The peoples of the world during that period were led by epic leaders, who for good or ill, were able to change the course of history through the force of their own intellects and personalities. The United States had Franklin Roosevelt; England, Winston Churchill; France, Charles de Gaulle; and Russia, Joseph Stalin.

The energies of statesmen and governments were directed toward the redrawing of political boundaries and the preservation of a strategic balance of power.

During the second World War, my own country and the Soviet Union were able to put aside their ideological differences and join together to save Europe from the spectre of Nazism.

Following the war, the face of the globe was drastically rearranged, and the world shuddered under the impact of a number of revolutions occurring simultaneously—any one of which alone would have had the most far reaching consequences.

Colonial rule was overthrown in most of the Southern Hemisphere—and fledgling governments struggled to provide for their peoples.

A population explosion in the underdeveloped nations coincided with a revolution of rising expectations producing dangerous instabilities.

The dawning of a nuclear age threatened the very existence of all mankind for the first time.

The delicate balance of power maintained since the Congress of Vienna was replaced by the emergence of two superpowers.

A revolution in technology and scientific progress offered the promise of unprecedented abundance and prosperity.

But old attitudes and thinking persisted. Instead of harnessing their energies to meet the challenges of all of the great changes taking place, the nations of both East and West allowed a cold war to come between them and divert their limited resources.

Ironically, it was economic growth, not the support of military establishments, which became the number one priority of the two defeated Axis powers—Germany and Japan. And their stunning recovery and prosperity today attests to this singleness of purpose, and the wisdom of pursuing economic gain rather than military power.

Increasingly, technological, economic and trade considerations are determining the nature of relations between nations. American diplomacy during the past two decades illustrates how these new realities were largely ignored.

While the United States was concerned with the NATO order of battle, the Federal Republic of Germany was more concerned with gathering orders for Volkswagens. While the U.S. was placing restrictions on its exports to the East, Western European trade with the East was flourishing.

I am convinced that during the last quarter of this Century, ecopolitics will replace geopolitics as the prime mover in the affairs of nations.

I am also convinced that because of this, it is time to relegate the Cold War to the pages of history. In 1971 this is exactly where it belongs.

The recently concluded treaties between the Federal Republic of Germany and the Soviet Union, and between the Federal Republic and Poland bear witness.

And the increasing trade and investment flows between East and West also bear witness.

While politicians and diplomats still argue over the same old tired political issues, businessmen and bankers are rearranging the basic nature of relations between states and peoples. While the generals still busy themselves with planning their war games and maneuvers, increasing commerce between East and West, and the growing internationalization of production, are making the idea of a major armed conflict in Europe an absurdity.

The activities of multinational corporations, and the increasing use of joint ventures and consortiums are crossing frontiers and erasing national boundaries more surely and swiftly than the passage of armies and the conclusion of peace treaties. For 20 years the United Nations has been unable to agree on a definition of "aggression". But it certainly takes much less time than that for businessmen representing different nations and economic systems to bind themselves together in a mutually beneficial contract.

Whether one likes it or not, the nations of the world are becoming more dependent on each other. Those who are actively engaged in expanding trade and transmitting technology between East and West are in the front ranks of those creating these strong bonds of mutual interdependence.

What we don't need in attempting to cope with the implications of such a rapidly changing world are attempts at simple solutions. One of my own countrymen, some 50 years ago, aptly stated—"for every human problem, there is a solution which is neat, simple—and wrong".

The simple solutions of a much simpler bygone age just don't work anymore. The time is past due for all national leaders to discard the notion that exports are good and imports are bad. This is the same as saying production is good and consumption is bad. Or—that our standard of living improves when we give value away, but not when we receive value in turn.

It is time to grasp the idea that the process of international trade increases productivity as surely as machinery and technology does.

And any leader—of either East or West—who ignores the economic implications of his political actions does so at his peril.

As far as my own country is concerned, much should be done to provide for expanded trade with the East. Important steps in this direction have already been taken.

The number of items on our list of restricted exports to the East is steadily shrinking. This is reflected most dramatically in the steady increase in American exports to the East. In 1969, they totalled $249 million. In 1970 this rose to $353 million. And based on the current year's first quarter figures, exports in 1971 should reach $450 million. This has come about largely through legislation passed in 1969 which put the Congress of the United States on record as endorsing expanded trade with Eastern Europe and the Soviet Union.

Less than two weeks ago, export licenses for sophisticated industrial processes totalling $100 million were approved. More license approvals can be expected in the near future. And on the day I left for Europe, the esteemed Chairman of the Senate Commerce Committee, Senator Warren Magnuson, expressed to me the need for expanded trade with the East, including China. This is only one manifestation of the increasing support in the Congress for closer ties.

Since 1968 Eximbank credits have not been available to finance American exports to the East. However, only this past April the Senate overwhelmingly voiced its intention to make such credits available again. I am confident that this will be done.

Such actions taken by my own country, however, will not get to the heart of one of the most serious barriers to increased East-West trade. Trade must be a two-way street—and at present, there is a broad avenue of exports from West to East, but only a narrow path from East to West. Both Western Europe and the United States enjoy too healthy a trade surplus with the East. One important step that can be taken by my own country is the extension of most-favored-nation treatment to all the countries of Eastern Europe.

But this is not a magical formula which will automatically enable the East to sell enough to the United States to close this trade gap. There is still much that the countries of Eastern Europe must do to improve their export position.

They must be willing to commit a greater share of their own economies to foreign trade, and cease to regard it as an activity designed only to supplement domestic economic capabilities. They must be prepared to develop industries geared to exports, and be more willing to depend on imports. They must seek greater understanding of the requirements of the American market and consumer tastes, if they are to sell their products.

It is self-defeating to talk of an expansion of East-West trade if the present imbalance in East-West trade is not corrected. The figures involved are dismal. If Western

Europe continues to maintain the same surplus in its trade with the East as it has done in the past few years, by 1980 there will be a projected $3.5 billion trade gap. The value of my own country's exports to the East this year will be almost double that of what it imports.

Aside from vigorous trade expansion programs, the East must also inject itself more forcefully into the mainstream of international trade and investment. The example of Poland's accession to the GATT should be emulated elsewhere. There should be more active interest shown in gaining membership in the International Monetary Fund and the World Bank.

I realize full well that these steps are not without certain risks. But it should be emphasized that both risks and the benefits will have to be shared equally by both East and West. Unless both sides show a willingness to move off dead center in settling of decades-old minor disputes, we will not be able to enjoy together the fruits of increased commercial relations.

Important changes have already taken place in the economies of the East—and I know you are all well acquainted with the rapid pace of reform undertaken here in Hungary, with its New Economic Mechanism. These changes are essential in meeting the requirements of international trade and they have not been taken without attendant risks. In experimenting with different ways of modernizing and industrializing, the East should feel it will be able to draw more freely and easily upon the experience, technology and investment capital of the West. But it will not be able to do so unless it offers more information and greater assurance to Western investors and partners.

At the same time the West must be willing to provide even more than material assistance. It still remains the responsibility of the major trading countries, the U.S., the EEC and Japan, to establish workable norms of international trade and investment. The recent OECD ministerial meeting, which I attended in Paris last week, offered promise that a start has been made in this direction. A high-level consultative body has been set up to examine the current barriers to increased international trade and investment. Unless all of the trading nations of the world get behind efforts to harmonize and rationalize world trade, the great conflicts of the 1980's might well be trade wars between warring economic blocs.

In the years ahead, as nations realize that efficiency means greater reliance on economic rather than political considerations, both market and non-market economic systems will inevitably move closer to each other. It has been predicted that by 1980 two-thirds of all the employment in the United States will be in the service industries, and only one-third in the production of goods. As this same division holds true in other countries, and the export of services increases, it will become imperative for people to begin to understand the workings of different economic systems much better than they do today.

The communications and psychological barriers impeding trade and commerce remain formidable. The differences between the operations of state operated monopolies in a non-market economy, and the mechanisms used by private cooperations in my own country are great. Unfamiliarity with methods and institutions breeds distrust and a reluctance to even consider commercial relations. While it will be more difficult to tear down emotional barriers, it should be less difficult to overcome the lack of knowledge.

In order to achieve better mutual understanding of our different systems, I shall propose to the Congress of the United States upon my return, that a new program of exchanges be established with the purpose of expanding trade between countries of the East and the United States.

Participants in this program would include graduate-level university students, teachers, corporation executives and bankers in my country, and students, teachers, foreign trade officials, and state trading monopoly representatives of Eastern countries.

In order to be of practical value, the duration of these visits would be at least one year and perhaps two. The time spent abroad should be allocated in such a way as to include roughly equal periods of theory and practice. For example, nine months would be spent at a university and nine months in the offices of an American industry or bank, or in an Eastern European state trading organization, or foreign trade ministry.

A grantee would have the opportunity of obtaining a working knowledge of the financial and trading structures of the country he has visited and some actual time spent in the other fellow's shoes. The new expertise gained could go a long way in expanding U.S. trade with the East. I see no reason why this program could not include exchanges between the United States and all countries outside of Europe with non-market economies—including the People's Republic of China.

In order for a program of this kind to be successful, the costs and the responsibility for its operation will have to be shared equally by all the participants. By creating such a body of trained men, trade and investment opportunities now being lost by both sides could be developed for the benefit of all.

A program of this kind will also establish another important channel of fruitful contact between East and West on a nonconfrontation level.

Diplomatic discussions are too cautious and too restricted by outworn attitudes.

Cultural exchanges do not reach into the very inner workings of a society—and are usually too fleeting. Exchanges of people directly involved in producing tangible benefits for both sides offer the greatest chance of success.

Ultimately, only by broadening and deepening the base of discussions and meetings between representatives of East and West can the idea of peaceful coexistence be translated into reality.

Through mutual efforts and good will on both sides, and by a keener appreciation of how truly small the world has become, we will all benefit from what each nation has to offer in the marketplaces of goods and ideas.

The role that all of you here today will play in this process is crucial. It is not merely one of opening markets, maximizing profits, or creating material wealth. By improving economic relations between East and West, and by inducing greater responsibility and cooperation among the nations of the East and the West, you will also be perfecting the arts of peace. I can think of no worthier calling.

DEATH OF CLARENCE PAUTZKE, FORMER ASSISTANT SECRETARY OF INTERIOR

Mr. MAGNUSON. Mr. President, last month, the people of my State and of the entire Nation, lost a faithful and dedicated servant. Clarence Pautzke is remembered by most of us in the Senate as the man President Kennedy named as commissioner of the U.S. Fish and Wildlife Service. Later, President Johnson made him an Assistant Secretary of Interior, for Fish, Wildlife, Parks and Marine Resources.

Clarence Pautzke was a giant of a man in many ways. I knew him as a personal friend—let me say that we were on the same football squad at the University of Washington—as well as a highly dedicated and extremely competent expert in fisheries and other wildlife management.

Mr. President, when Clarence Pautzke was laid to rest on August 18, he was eulogized by John Biggs, director of the Washington State Department of Ecology. The following day, Georg N. Meyers, the sports editor of the Seattle Times, referred to Clarence as "the blithe spirit of Mr. Steelhead."

Mr. President, the story of Clarence Pautzke as a man, friend, sportsman and fisheries expert, is told by these two men far more eloquently than could I, and therefore, I ask unanimous consent to have these documents printed in the RECORD.

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

EULOGY TO CLARENCE F. PAUTZKE

(By John A. Biggs)

We have come here all of us together, as a family, and as a family of friends to say a prayer and a few words about a husband, a father, and a friend to all of us. That there are so many of us, is a measure of the affection that all of us have felt for Clarence Pautzke.

Clarence was born in Auburn, he spent his early life living on a farm near the mouth of Soos Creek. It was there that he learned to love the outdoors and the things of nature. He attended high school in Auburn and there became an athlete—an outstanding athlete. It was during this period that he began to develop and be known for his great personality, something which won him so many friends literally throughout the world, and also to be known for the compassion, for the understanding, and for the friendship that he was so generously willing to offer to everyone.

He went to the University of Washington as an athlete. He became one of the greatest athletes the University has ever known, and here at the University, he found his life's profession—the profession of fishery management. He enrolled in the School of Fisheries and learned about the basics of fish life and the basics of fish management programs, but perhaps the most important of all, he learned to value and to understand these great things of nature. Clarence was always very proud of his association with the University of Washington and the School of Fisheries. He often turned back to the University and the School of Fisheries for counsel, advice and guidance. He carried the flag of the University and the University's faculty very proudly wherever he went.

Meta and Clarence have been married for more than 30 years. Theirs has been a rich and a full marriage; one to which both gave great quantities of love and affection, and both of them drew strength from it. They have 3 children in which they have taken great pride: Maxine, Mimi and Clarence. To my certain knowledge, one of the great things about Clarence Pautzke's life was his children. He loved them and was proud of them, and they have had great meaning to him.

He began his professional career as a wildlife agent with the State Game Department; he quickly became a fisheries biologist, and developed in the State Game Department the outstanding fishery management programs which the Department became known for. The programs of steelhead management, the programs of lake management, and the fishery programs, generally, of the Department of Game, had their origin in Clarence

Pautzke. He was the person who had the vision and the initiative and the competitive spirit to bring them into being.

He left the Department as Assistant Director and went to the Department of Fisheries, where again, he was able to endow the programs of the Department of Fisheries with initiative, with spirit, and with new horizons. From there, he went to the Alaska Department of Fisheries and Game as Assistant Director, and helped develop and lay down the basic rules and policies of conservation for the magnificent resources of fish and wildlife which that state has continued to employ.

President Kennedy appointed him as Commissioner of the U.S. Fish and Wildlife Service, and President Johnson appointed him Assistant Secretary of the Interior in charge of this Nation's programs of fish, wildlife and parks. His influence and his leadership were felt throughout the United States and throughout the World and its oceans, where the fishery and wildlife programs of the United States have been known and have been identified. The honor of appointment as Assistant Secretary is the highest honor any person can hold in the field of fishery and wildlife management. It is the highest professional position that this country can offer. It was to all of us, a credit that he could achieve this, and he is the only person from the State of Washington who has ever earned such a great honor; he earned it all the way from the bottom to the top, and he earned it by the great things and great qualities which were his personality.

During the war, he began a brilliant Naval career; joining the Navy as an enlisted man and leaving the Navy as a Commander, which was once again an illustration of the things he could do.

To my knowledge, Clarence Pautzke was a deeply religious man. He found his way to worship God and to serve God in the outdoors. He had a great love and a great understanding of the lakes, the streams, the mountains, and the forests of this State and of this Nation. In a very imaginative way, he developed programs to provide for greater conservation and care of these resources. But, especially, he loved and seemed to understand the wild things that live in the lakes, the streams, and the forests. He developed programs that gave them greater protection than ever before and greater understanding. He literally brought into the minds of men and the minds of people throughout this country a new dignity for and new understandings of wildlife values and the irreplaceable values of these things.

He alerted the people of this State and of this Nation to the need to take care of these wild things. This alertness, this awareness, are spelled out today in many of this State's and this Nation's programs of fishery and wildlife conservation, and especially the philosophies of average people having to do with the meaning of these wild things and the need for mankind to understand and take care of them. This was his way of serving God and he served God in an outstanding way.

So, I say now to you, Clarence, from all of us, the people in this room and the people throughout the world who have known you and to whom you have meant so much—go with God. You leave this world a better place than you found it, and you leave in the hearts and the minds of each one of us a place and a part that no one will ever replace.

[From the Seattle Times, Aug. 19, 1971]

THE BLITHE SPIRIT OF MR. STEELHEAD

(By Georg N. Meyers)

He was a moose. Crockery rattled when he walked. His handshake was like the collapse of mountains. Strangers said he had the air of a man forever looking for a telephone book to tear in half.

Forty years after he played end for Auburn's undefeated football team, the high school honored him as its outstanding graduate. As a University of Washington football player, he left a legend far beyond his visible skills. He was behind the plate for the Husky baseball team that won a Northern Division championship in 1932.

The Alaska Legislature once convened a joint session to pay tribute to him, and Seattle's Mayor Gordon Clinton proclaimed a "Clarence Pautzke Day."

But, to fishermen of the state, he was—and will be remembered as—"Mr. Steelhead."

The burly frame whose principal attribute on the gridiron was intimidation housed a mind commandeered by his nation to cope with the complexities of international fisheries.

In 1956, the Puget Sound Sports Writers and Sportscasters' Association gave him its highest accolade, the Sullivan Award, for developing the game-fishing of steelhead in Washington's rivers and streams.

In 30 years with the State Game and Fisheries Departments, he was on intermittent call for broader duties—a journey to Russia to study hatchery techniques, a voyage to Bikini to observe the effects on marine life of the atom-bomb tests.

On retirement as assistant director of the State Fisheries Department, he was snapped up by Alaska as assistant commissioner of its Department of Fish and Game. President Kennedy stole him away as commissioner of the United States Fish and Wildlife Service. President Johnson made him assistant secretary of the interior for fish, wildlife, parks and marine resources.

Retired from that grind, he tapered off as a Congressional consultant on fisheries. Recently, he returned to Seattle and "retired" again—this time, he said, for good.

It must have taken a while for associates in the austere halls of government to accept that, except when talking fish and game like a beady-eyed scientist, Clarence Pautzke rarely drew a serious breath.

His fondest memory as a Husky was pleading with this coach, Jimmy Phelan, to switch him from end to guard. He got his chance when Chuck Lappenbusch needed an operation just before the game against the 1930 Washington State Cougars who went to the Rose Bowl.

"I tried for four days to learn the signals and finally wrote 'em on my pants leg," Pautzke liked to recall. "Bob Palmer, the other guard, was scared to death. The guards pulled a lot. He was afraid I'd run the wrong way and squash him.

"In the game, I pulled back and started running along the line. All I could see was a row of big seats. They all looked alike. So I picked out the biggest one and slammed into it."

That seat was the property of Paul Schwegler, Washington's All-American tackle. Paul picked himself up and yelled: "I had my man, what are you hitting me for?"

As a freshman, Pautzke played for Phelan's predecessor, Enoch Bagshaw. Those Huskies often took on teams from visiting battleships.

"The games didn't count toward letters, and a lot of kids got in," he said. "In one game, a great big sailor-boy tackle with his hands wrapped in pretty hefty style with generous portions of tape was out there mauling our first-string end, Bill Snider.

"Baggy jumped off the bench and yelled: 'Lordamighty, that guy's killing Snider! Get in there, Pautzke!' That pretty well told me where I stood."

Washington, D.C., got an early glimpse of the blithe spirit motivating the veteran administrator whom Interior Secretary Udall was interviewing for federal appointment in 1961.

Pautzke told the story on himself: "Udall's door was guarded by a woman secretary. She was nice-looking but a real watchdog. Every time I'd stand up and start for the office, she would say, 'Sit down.'

"When I went back the next day, I peered in. There she was, with her 'sit down' look. I sailed my hat into the room and said, 'Hey, watch this!' Before the hat hit the floor, I was past her and into Udall's office."

Two Sundays, savoring his latest retirement, Pautzke attended a 25th-anniversary reunion with his fisheries cronies who had sieved the Bikini waters after the bomb blast.

As usual, he told his funny stories, including the laugh he got at Bikini when a five-foot shark bit a hole in a two-man rubber raft he occupied with a Navy medic, who had pulled the beast aboard.

While the air hissed out of the raft, he said, he plugged the hole with the medic's head.

As the reunion party broke up, Pautzke told his friends he was going into the hospital for surgery on an ailing hip.

The operation went off well. Four days later, his heart stopped. Yesterday, as sportsmen mourned, the big moose, Mr. Steelhead, at 64, was laid to rest, really retired, at last.

QUORUM CALL

Mr. GRIFFIN. Mr. President, I suggest the absence of a quorum.

The PRESIDING OFFICER (Mr. HUMPHREY). The clerk will call the roll.

The second assistant legislative clerk proceeded to call the roll.

Mr. BYRD of West Virginia. Mr. President, I ask unanimous consent that the order for the quorum call be rescinded.

The PRESIDING OFFICER. Without objection, it is so ordered.

SCHOOL INTEGRATION IN DETROIT, MICH.

Mr. GRIFFIN. Mr. President, on Monday of this week, a Federal district judge in Michigan handed down a decision finding that the Detroit school system, which has been integrated for many, many years, is guilty of de jure and de facto segregation.

An interesting and penetrating appraisal of that decision is contained in an editorial published today by the Detroit Free Press, and I ask unanimous consent to have it printed in the RECORD.

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

[From the Detroit Free Press, Sept. 29, 1971]

CAN CITY MEET CHALLENGE OF INTEGRATING SCHOOLS?

The potential impact of Judge Stephen Roth's finding that the schools of Detroit are de jure segregated is so great that one can scarcely take it all in. The scope of segregation here is such that the experience in other, smaller communities is only partially relevant.

Thus, it is in Judge Roth's search for remedies, which is to begin Oct. 4, that the real difficulty will come.

Reading Judge Roth's detailed ruling, we find it impossible to challenge his finding. A long history of discriminatory public policy has created a segregated city. More recently, the state's action in overturning the Detroit school board's celebrated "April 7" integration plan has given proof of state involvement in perpetuating patterns of discrimination.

The housing pattern in the city is no accident, as Judge Roth concluded. The state's failure to provide transportation funds for

Detroit school children influenced the pattern. The effects of zoning regulations, of governmental and quasigovernmental decisions have left their mark on the city.

But even though this is all true, Judge Roth and the public schools of Detroit have an enormous practical problem. Given the great distance that may be involved, how relevant is busing to Detroit's situation? Are the suburbs being kept segregated by law and are they properly parties to this suit? In a school system now more than 70 percent black, is resegregation avoidable?

No one really knows. Judge Roth is pushing out into areas beyond which most judges have had to go. The scale of the problem and the fact that there are separate school units make it a matter of great difficulty. funds is not as relevant to this case as the command to cope with these issues.

It is probably worthwhile, at this preliminary point, to raise the question of whether the matter of the distribution of funds is not as relevant to this case as the distribution of kids.

Indeed, it may turn out to be the most relevant issue of all. Busing, while it is the issue that tears mothers' hearts out, is subject to finite limits. The inequity in the flow of funds to schools across the state of Michigan need be subject to no such physical or geographical limits.

In other words, even as Judge Roth contemplates whether children of differing races must go to school together, ought he not also to weigh the distribution of funds?

The California case, with its challenge to the unequal distribution of funds, is very much to the point in this case. We would see in that more potential for ending discrimination in metropolitan Detroit than we can in busing, though that may come too.

The next year will be an extremely troublesome year for parents in Detroit and its suburbs. We have known such a decision was likely to come, but it will not be much easier for having been anticipated. Judge Roth may go beyond the April 7 plan, with its relatively limited impact. And the instability in the city's neighborhoods will not be allayed by the long process of working out the application of the law.

The best we can hope for is that the people of the Detroit area will meet this challenge with a sense of justice and responsibility and that Detroiters will overcome, as others have, the difficulties in applying the law to our circumstances.

PROGRAM

Mr. BYRD of West Virginia. Mr. President, the program for tomorrow is as follows:

The Senate will convene at 10 o'clock a.m. Following the recognition of the two leaders under the standing order, the following Senators will be recognized, each for not to exceed 15 minutes and in the order stated: Senators BYRD of Virginia, HARRIS, and TUNNEY.

Following the orders of the recognition of Senators, there will be a period for the transaction of routine morning business, for not to exceed 15 minutes, with statements therein limited to 3 minutes.

Upon the conclusion of routine morning business, the Senate will resume consideration of the pending amendment No. 445 by the distinguished junior Senator from Missouri (Mr. EAGLETON), the so-called main battle tank 70 amendment. There will be a time limitation of 2 hours thereon, followed by a rollcall vote on that amendment.

Upon the disposition of the Eagleton amendment, the Senate will proceed to the consideration of the so-called end-the-war amendment, an amendment by the distinguished majority leader, amendment No. 437, on which there is a time limitation of 3 hours, at the end of which there will be a rollcall vote, the yeas and nays having been already ordered.

Upon disposition of that amendment, the Senate will proceed to the consideration of amendment No. 438, an amendment offered by the Senator from Arkansas (Mr. FULBRIGHT) dealing with Rhodesian chrome ore. There is a time limitation on that amendment of 2 hours, at the conclusion of which there will undoubtedly be a rollcall vote.

Senators, therefore, are on notice that there will undoubtedly be at least three rollcall votes tomorrow, and possibly additional rollcall votes, depending upon whether amendments to the amendments are offered.

ADJOURNMENT TO 10 A.M.

Mr. BYRD of West Virginia. Mr. President, if there be no further business to come before the Senate, I move, in accordance with the previous order, that the Senate stand in adjournment until 10 o'clock tomorrow morning.

The motion was agreed to; and (at 6 o'clock and 10 minutes p.m.) the Senate adjourned until tomorrow, Thursday, September 30, 1971, at 10 a.m.

NOMINATIONS

Executive nominations received by the Senate September 29, 1971:

OFFICE OF EMERGENCY PREPAREDNESS

Elmer F. Bennett, of Maryland, to be an Assistant Director of the Office of Emergency Preparedness, vice Nills A. Boe.

RENEGOTIATION BOARD

Richard T. Burress, of Maryland, to be a member of the Renegotiation Board, vice William Henry Harrison, resigned.

IN THE COAST GUARD

The following-named officers of the Coast Guard for promotion to the grade of lieutenant (junior grade):

Klaus Addie	Thomas F. Weber
Carroll H. Holst	Richard L. Harvey
Richard E. Schmidt	Christopher A. Kiefer
Alfred P. Howland	James A. Kramer
James E. Cain	Charles O. Gill
Paul K. Bothmann	John L. Glen
Timothy A. Thompson	Gilbert O. Montoya
Michael T. Eberhardt	Roy C. Lewis, Jr.
Stanley E. Lehman	William F. Landry
William T. Mahoney	Kenneth S. Rollins, Jr.
John L. Sprague	

The following-named Reserve officers to be permanent commissioned officers of the Coast Guard in the grade of lieutenant:

Reed C. Mattingly	Robert T. Ritchie
Leon K. Thomas	Paul M. Regan
William S. Griswold	Craig M. Nicholson
Duncan P. Johnson	Richard G. Jones
Kendall M. Whiting	John Rice
John L. Parker	

IN THE AIR FORCE

The following-named officers for promotion in the Regular Air Force, under the appropriate provisions of chapter 835, title 10, United States Code, as amended. All officers are subject to physical examination required by law.

LINE

First lieutenant to captain

Aarni, John C. Jr., xxx-xx-xxxx
Abbott, Robert A., xxx-xx-xxxx
Abbott, Wayne R., xxx-xx-xxxx
Abela, Alexander A., xxx-xx-xxxx
Ables, Charles D., xxx-xx-xxxx
Abraham, Quentin D., xxx-xx-xxxx
Abrams, Frederic L., xxx-xx-xxxx
Abrams, Kenneth H. Jr., xxx-xx-xxxx
Adams, Harold Q., Jr., xxx-xx-xxxx
Adams, Henry R., xxx-xx-xxxx
Adams, Jack L., xxx-xx-xxxx
Adams, Jim D. Jr., xxx-xx-xxxx
Adams, John W., xxx-xx-xxxx
Adams, Louis J., xxx-xx-xxxx
Adams Thomas L., xxx-xx-xxxx
Adams, Walton F. Jr., xxx-xx-xxxx
Adamson, Daniel P. Jr., xxx-xx-xxxx
Addison, John M., xxx-xx-xxxx
Adler, John W., xxx-xx-xxxx
Aicale, Ronald R. J., xxx-xx-xxxx
Aitken Douglas B., xxx-xx-xxxx
Alau, Henry D. K., xxx-xx-xxxx
Alburn, Cary R. III, xxx-xx-xxxx
Adrian, Frederic L., xxx-xx-xxxx
Alexander, Joseph R., xxx-xx-xxxx
Alexander, Jon R., xxx-xx-xxxx
Alexander, Rudolph, xxx-xx-xxxx
Alexander, Thomas W., xxx-xx-xxxx
Alfred, Robert E. L., Jr., xxx-xx-xxxx
Alison, Thomas M., xxx-xx-xxxx
Allan, Douglas B., xxx-xx-xxxx
Alldredge, Charles H. S., xxx-xx-xxxx
Allemand, Kenneth J., xxx-xx-xxxx
Allen, Charles C., xxx-xx-xxxx
Allen, James D., xxx-xx-xxxx
Allen, Mervin B., xxx-xx-xxxx
Allen, Paul B., xxx-xx-xxxx
Allen, Robert E., xxx-xx-xxxx
Allyn, George S., Jr., xxx-xx-xxxx
Alme, Marvin L., xxx-xx-xxxx
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Ames, Laurence W., xxx-xx-xxxx
Ammon, Robert V., xxx-xx-xxxx
Amoded, James M., xxx-xx-xxxx
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Anderson, David S. J., xxx-xx-xxxx
Anderson, Donald M., xxx-xx-xxxx
Anderson, Howard C., xxx-xx-xxxx
Anderson, James C., xxx-xx-xxxx
Anderson, Michael E., xxx-xx-xxxx
Anderson, Robert M., xxx-xx-xxxx
Anderson, Roger L., xxx-xx-xxxx
Anderson, Tim G., xxx-xx-xxxx
Anderson, William B., xxx-xx-xxxx
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Angstadt, Howard J., Jr., xxx-xx-xxxx
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Armstrong, Edwin L., xxx-xx-xxxx
Arndt, John B., xxx-xx-xxxx
Arnholt, Terry J., xxx-xx-xxxx
Arnold, Alfred F., xxx-xx-xxxx
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Kinnard, Paul G. xxx-xx-xxxx
Koenig, Charles F., xxx-xx-xxxx
Labarre, Gary C., xxx-xx-xxxx
Laborde, Cliffe C., Jr., xxx-xx-xxxx
Lathrop, George D., xxx-xx-xxxx
Lewis, Ronald G., xxx-xx-xxxx
Lordon, Robert E., xxx-xx-xxxx
Lubin, Arnold N., xxx-xx-xxxx
Massey, Freddy M., xxx-xx-xxxx
Mazzaferri, Ernest L., xxx-xx-xxxx
Moore, William B., xxx-xx-xxxx
Mullican, Charles N., xxx-xx-xxxx
Nassif, Thomas J., xxx-xx-xxxx
Nelson, Manfred R., xxx-xx-xxxx
Palma, William E., xxx-xx-xxxx
Parker, Warren M., Jr., xxx-xx-xxxx
Petri, Edward J., xxx-xx-xxxx
Ringler, Harold L., Jr., xxx-xx-xxxx
Root, David E., xxx-xx-xxxx
Rudd, Ronald E., xxx-xx-xxxx
Runkle, William M., xxx-xx-xxxx
Shaklan, Barry N., xxx-xx-xxxx
Sheridan, Edward J. xxx-xx-xxxx
Simson, Laurence R., Jr., xxx-xx-xxxx
Smith, Darryl D., xxx-xx-xxxx
Stevenson, Onex D., xxx-xx-xxxx
Strong, James D., Jr., xxx-xx-xxxx
Takamoto, Robert M., xxx-xx-xxxx
Talbot, John M., xxx-xx-xxxx
Vandyke, John J., xxx-xx-xxxx
Williams, Robert X., xxx-xx-xxxx
Wittke, Paul E., xxx-xx-xxxx
Young, Robert L., xxx-xx-xxxx
Yount, Ira M., xxx-xx-xxxx
Zavacki, John, xxx-xx-xxxx

NURSE CORPS

Anderson, Darlene A., xxx-xx-xxxx
Baker, Lois J., xxx-xx-xxxx
Bakeford, Betsy J. xxx-xx-xxxx
Barron, Nancy J., xxx-xx-xxxx
Bolitho, Joann H., xxx-xx-xxxx
Boone, Reba, xxx-xx-xxxx
Boyd, Mary R., xxx-xx-xxxx
Brinkmann, Joanne M., xxx-xx-xxxx
Chalifour, Mary L., xxx-xx-xxxx
Cleveland, Shirley L., xxx-xx-xxxx
Covino, Mary C., xxx-xx-xxxx
Cox, Mildred J., xxx-xx-xxxx
Donnelly, Grace E., xxx-xx-xxxx
Doriski, Helen, xxx-xx-xxxx
Downey, Gertrude A., xxx-xx-xxxx
Dudley, Mary L., xxx-xx-xxxx
Engleman, Shirley E., xxx-xx-xxxx
Ferguson, Myrtle G., xxx-xx-xxxx
Fleming, Alma M., xxx-xx-xxxx
Forster, Mary R., xxx-xx-xxxx
Gordon, Charlotte J. xxx-xx-xxxx
Heck, Mary J., xxx-xx-xxxx
Heiser, Sharon O., xxx-xx-xxxx
Hopkins, Edna M., xxx-xx-xxxx
Jones, Betty J., xxx-xx-xxxx
Jones, Ernestine M., xxx-xx-xxxx
Keene, Ruby, xxx-xx-xxxx
Kernan, Ellen, M. B., xxx-xx-xxxx
Liebeck, Maye L., xxx-xx-xxxx
Makauskas, Loretta A., xxx-xx-xxxx
Mullin, Margaret M., xxx-xx-xxxx
Nicholson, Estella J., xxx-xx-xxxx
Parnell, Peggy J., xxx-xx-xxxx
Perkins, Earline, xxx-xx-xxxx
Prusko, Joan R., xxx-xx-xxxx
Remmes, Elizabeth J., xxx-xx-xxxx
Roberts, Charlotte, xxx-xx-xxxx
Sanders, Barbara I. xxx-xx-xxxx
Schimmenti, Carmelita xxx-xx-xxxx
Shalenko, Paul C., xxx-xx-xxxx
Showers, Avis R., xxx-xx-xxxx
Stadelman, Mary E., xxx-xx-xxxx
Stewart, Janette B. xxx-xx-xxxx
Sumner, Joan A., xxx-xx-xxxx
Taylor, Lillie M., xxx-xx-xxxx
Thomas, Mary M., xxx-xx-xxxx
Uldrich, Ruth H., xxx-xx-xxxx
Walsh, Claire, xxx-xx-xxxx
Woodruff, Faye, xxx-xx-xxxx

MEDICAL SERVICE CORPS

Adams, Gary L., xxx-xx-xxxx
Archie, Julius C., xxx-xx-xxxx
Briggs, Edward, xxx-xx-xxxx
Brown, Raymond A., xxx-xx-xxxx
Brown, Ross C., xxx-xx-xxxx
Butterworth, Bernal G. xxx-xx-xxxx
Corrigan, Paul J., Jr. xxx-xx-xxxx
Crunkilton, Allen L., xxx-xx-xxxx
Dey, Doyle D., xxx-xx-xxxx
Dickes, David W., xxx-xx-xxxx
Fletcher, Kenneth E., xxx-xx-xxxx
Harrington, Patrick C. xxx-xx-xxxx
Hedley, Leo C., xxx-xx-xxxx
Herrod, Hubert E., xxx-xx-xxxx
Holley, Robert C., xxx-xx-xxxx
King, James M., xxx-xx-xxxx
Knowles, Harold D., xxx-xx-xxxx
Kraff, Myron M., xxx-xx-xxxx
Kwapich, Kenneth R., xxx-xx-xxxx
Lindsey, Joe D., xxx-xx-xxxx
Marquis, Don B., xxx-xx-xxxx
Murphy, John E., xxx-xx-xxxx
Nadell, Avrom P., xxx-xx-xxxx
O'Donnell, Philip F., Jr., xxx-xx-xxxx
Parker, Robert W., xxx-xx-xxxx
Smith, Robert D., xxx-xx-xxxx
Smith, Thomas L., xxx-xx-xxxx
Thrasher, Lewis J., xxx-xx-xxxx
Walker, Kenneth C., xxx-xx-xxxx
Wassmund, James A., xxx-xx-xxxx
Watkins, Charles H., xxx-xx-xxxx
Wilhelm, Bruce D., xxx-xx-xxxx
Willging, James B., xxx-xx-xxxx
Williams, Charles S., xxx-xx-xxxx

VETERINARY CORPS

Bradbury, Richard P., xxx-xx-xxxx
Brooks, Frank T., xxx-xx-xxxx
Buckhold, Delwin K., xxx-xx-xxxx
Caraway, Bobby L., xxx-xx-xxxx
Jones, Sidney R., xxx-xx-xxxx
Mattsson, Joel L., xxx-xx-xxxx
McConnell, Ernest E., xxx-xx-xxxx
Vanstee, Ethard W., xxx-xx-xxxx
Wolfie, Thomas L., xxx-xx-xxxx

BIOMEDICAL SCIENCES CORPS

Ainsworth, Clayton A., III, xxx-xx-xxxx
Bailey, Ronald B., xxx-xx-xxxx
Barrett, Quentin T. xxx-xx-xxxx
Bassett, Bruce E., xxx-xx-xxxx
Bayer, Johan E., xxx-xx-xxxx
Breeskin, John, xxx-xx-xxxx
Carter, Donald I. xxx-xx-xxxx
Coleman, Frederick E., III, xxx-xx-xxxx
Compton, John C., xxx-xx-xxxx
Coyne, Robert V., xxx-xx-xxxx
Furtado, Victor C., xxx-xx-xxxx
Hodges, James T., xxx-xx-xxxx
Humerickhouse, Marlan J. xxx-xx-xxxx
Kush, George S., xxx-xx-xxxx
Maio, Domenic A., xxx-xx-xxxx
McMurdo, Gordon C., xxx-xx-xxxx
Parkhurst, Michael J. xxx-xx-xxxx
Porter, Kenneth R. xxx-xx-xxxx
Rodriguez, Sylvia M., xxx-xx-xxxx
Ryckeley, Martha E., xxx-xx-xxxx
Seager, Brent C., xxx-xx-xxxx
Sears, William J., xxx-xx-xxxx
Smead, Phillip E., xxx-xx-xxxx
Smith, Roy K., xxx-xx-xxxx
Spence, Kenneth J. xxx-xx-xxxx
Suggs, Harry J., xxx-xx-xxxx
Titzel, Gene E., xxx-xx-xxxx
Varkonyi, Nicholas T., xxx-xx-xxxx
Wallace, James D., xxx-xx-xxxx
Wasserzieher, Gilbert D., xxx-xx-xxxx
White, Lillian E., xxx-xx-xxxx
Williams, Carlton R., xxx-xx-xxxx

The following Air Force officers for reappointment to the active list of the Regular Air Force, in the grade indicated, from sections 1210 and 1211, Title 10, United States Code:

LINE

To be colonel

Manning, William R., xxx-xx-xxxx
Shoop, Richard R., xxx-xx-xxxx

To be lieutenant colonel

Bigelow, Ralph J., xxx-xx-xxxx
Eichner, Leonard, xxx-xx-xxxx
Fitzsimmons, Earl J. xxx-xx-xxxx
Gunn, Leon O., Jr. xxx-xx-xxxx
Lenhoff, Clement J., xxx-xx-xxxx
Manning, Robert J. xxx-xx-xxxx

To be major

Heston, Earl T., xxx-xx-xxxx
Will, Kenneth J. xxx-xx-xxxx

To be captain

Jackson, Orville H., Jr. xxx-xx-xxxx
Sewell, Stanley G., xxx-xx-xxxx

DENTAL CORPS

To be lieutenant colonel

Johnson, James T., xxx-xx-xxxx

Lt. Col. William Geffen, xxx-xx-xxxx FR, for appointment as permanent professor, U.S. Air Force Academy, under the provisions of section 9333(b), title 10, United States Code.

The following persons for appointment in the Regular Air Force, in the grades indicated, under the provisions of section 8284, title 10, United States Code, with a view to designation under the provisions of section 8067, title 10, United States Code, to perform the duties indicated, and with dates of rank to be determined by the Secretary of the Air Force:

To be captain (Dental)

Willsey, Dean B., xxx-xx-xxxx

To be first lieutenant (Dental)

Finkbeiner, Richard L. xxx-xx-xxxx
Summitt, James B. xxx-xx-xxxx
Wilson, Daniel W., Jr., xxx-xx-xxxx

Subject to medical qualification and designation as distinguished graduates, the following students of the Air Force Reserve Officer Training Corps for appointment in the Regular Air Force, in the grade of second lieutenant, under the provisions of chapter 103, title 10, United States Code, with dates of rank to be determined by the Secretary of the Air Force:

Baker, John R., Jr. xxx-xx-xxxx
Stanley, Galen W., xxx-xx-xxxx
Stledger, John W., xxx-xx-xxxx
Vansickle, Peter S., xxx-xx-xxxx
Zeigler, George W., xxx-xx-xxxx

IN THE ARMY

The following-named person for reappointment in the active list of the Regular Army of the United States, from temporary disability retired list, under the provisions of title 10, United States Code, section 1211:

To be lieutenant colonel

Touchette, Norbert E. xxx-xx-xxxx.

The following-named person for appointment in the Regular Army, by transfer in the grade specified, under the provisions of title 10, United States Code, section 3283 through 3294:

To be captain

Friend, Gary G. xxx-xx-xxxx.

The following-named persons for appointment in the Regular Army of the United States, in the grades specified, under the provisions of title 10, United States Code, sections 3283 through 3294 and 3311:

To be major

Haas, Weston Carlos F. xxx-xx-xxxx.
Redman, William W., Jr. xxx-xx-xxxx.
Territo, Joseph R. xxx-xx-xxxx.
Vipperman, Louis O. xxx-xx-xxxx.

To be captain

Balson, Paul M. xxx-xx-xxxx.
Boddie, Julia A. xxx-xx-xxxx.
Brown, Edward M. xxx-xx-xxxx.
Brown, Russell K. xxx-xx-xxxx.
Chapman, James E. xxx-xx-xxxx.
Charpentier, Charles M. xxx-xx-xxxx.
Cowan, George S. M., Jr. xxx-xx-xxxx.
Dempsey, John W. xxx-xx-xxxx.
Dennis, Carroll W. xxx-xx-xxxx.
Dew, Joseph M. xxx-xx-xxxx.
Esposito, Anthony J. xxx-xx-xxxx.
Fournier, David H. xxx-xx-xxxx.
Garcia, Reynaldo A. xxx-xx-xxxx.
Guynn, Horace W. xxx-xx-xxxx.
Hansen, Vernon K. xxx-xx-xxxx.
Hearn, William C. xxx-xx-xxxx.
Henry, Edwin H. xxx-xx-xxxx.
Johns, Robert H. xxx-xx-xxxx.
Katz, Norman N. K. xxx-xx-xxxx.
King, Charles T. xxx-xx-xxxx.
King, Donald P. xxx-xx-xxxx.
Madzelan, Jon W. xxx-xx-xxxx.
Meagher, John R. xxx-xx-xxxx.
Mitchell, Alan L. xxx-xx-xxxx.
Moe, Thelmer A. xxx-xx-xxxx.
Moot, Harrison J. xxx-xx-xxxx.
Pennell, William H. xxx-xx-xxxx.
Perales, Sergio R. xxx-xx-xxxx.
Peterson, Henry xxx-xx-xxxx.
Pitt, Lauc R., Jr. xxx-xx-xxxx.
Plomgren, Chester A. xxx-xx-xxxx.
Pruitt, Donald E. xxx-xx-xxxx.
Rothman, Jay A. xxx-xx-xxxx.
Schenker, Frederick S. xxx-xx-xxxx.
Skonieczny, Thomas M. xxx-xx-xxxx.
Strawser, Ray A. xxx-xx-xxxx.
Tempton, Willie A. xxx-xx-xxxx.
Tsaknis, Peter J. xxx-xx-xxxx.
Vinson, Billy R. xxx-xx-xxxx.
Wilde, James E. xxx-xx-xxxx.
Yourchek, Walter S. xxx-xx-xxxx.

To be first lieutenant

Acton, Michael R. xxx-xx-xxxx.
Anderson, Andrew K. xxx-xx-xxxx.
Arriza, John G. xxx-xx-xxxx.
Baker, Thomas W. xxx-xx-xxxx.
Banisch, Werner W. xxx-xx-xxxx.
Barefoot, Allen, Jr. xxx-xx-xxxx.
Benoit, Edmond J. xxx-xx-xxxx.
Beyer, Melvin L. xxx-xx-xxxx.
Botkin, William M. xxx-xx-xxxx.
Breman, Stephen L. xxx-xx-xxxx.
Bundons, Albert R. xxx-xx-xxxx.
Castleberry, Johnny M. xxx-xx-xxxx.
Catron, Donald J. xxx-xx-xxxx.
Cerone, Daniel T. xxx-xx-xxxx.
Close, Fred L., Jr. xxx-xx-xxxx.
Collier, Steven J. xxx-xx-xxxx.
Cook, Donald C., Jr. xxx-xx-xxxx.
Crawford, Robert G. xxx-xx-xxxx.
Dalby, Perry V. xxx-xx-xxxx.
Dimeo, Richard S. xxx-xx-xxxx.
Disher, Steve A. xxx-xx-xxxx.
Dubuc, Allen A. xxx-xx-xxxx.
Duke, James E. xxx-xx-xxxx.
Efnor, Samuel J. xxx-xx-xxxx.
Eye, Richard D. xxx-xx-xxxx.
Fenton, Thomas D. xxx-xx-xxxx.
Forbes, Tran L. xxx-xx-xxxx.
Forester, Jerry D. xxx-xx-xxxx.
Fountain, David C. xxx-xx-xxxx.
Gates, Elise M. xxx-xx-xxxx.
Gimbert, Jack H. xxx-xx-xxxx.
Graham, Lacy T. xxx-xx-xxxx.
Grogg, Ronald W. xxx-xx-xxxx.
Hargrave, Lester B. Jr. xxx-xx-xxxx.
Harmon, Charles W. xxx-xx-xxxx.
Harper, Jay G. xxx-xx-xxxx.
Harris, Steven R. xxx-xx-xxxx.
Hayden, Melvin L. xxx-xx-xxxx.
Heider, Richard T. xxx-xx-xxxx.
Henry, William T. xxx-xx-xxxx.
Hertel, Arthur J. xxx-xx-xxxx.
Hopkin, Mac M. xxx-xx-xxxx.
Jones, Lindon D. xxx-xx-xxxx.
Keppel, John S. xxx-xx-xxxx.
King, James M. xxx-xx-xxxx.
Kyle, Billy J. xxx-xx-xxxx.
Lemoine, David L. xxx-xx-xxxx.
Magaw, Charles E. xxx-xx-xxxx.
Magill, Jay N. xxx-xx-xxxx.
Mahony, Duane M. xxx-xx-xxxx.
Mann, Roy E. xxx-xx-xxxx.
McCreary, Samuel C. xxx-xx-xxxx.
McMahon, Michael xxx-xx-xxxx.
McRae, Arthur C. xxx-xx-xxxx.
Meager, Robert C. xxx-xx-xxxx.
Mellor, John L., Jr. xxx-xx-xxxx.
Miller, Lynn E. xxx-xx-xxxx.
Miraglia, Vincent P. xxx-xx-xxxx.
Molnar, Albert C. xxx-xx-xxxx.
Mullins, Obie D. Sr. xxx-xx-xxxx.
Nesbitt, Ray F. xxx-xx-xxxx.
Oldham, Michael A. xxx-xx-xxxx.
Pace, James G. xxx-xx-xxxx.
Parker, Douglas W. xxx-xx-xxxx.
Patterson, Raland J. xxx-xx-xxxx.
Pederson, Lloyd W. xxx-xx-xxxx.
Portmann, Ross C. xxx-xx-xxxx.
Powers, Barry E. xxx-xx-xxxx.
Prettol, Donald C. xxx-xx-xxxx.
Raab, Carl F., IV. xxx-xx-xxxx.
Ray, Douglas J. xxx-xx-xxxx.
Rice, Richard A. xxx-xx-xxxx.
Ridgeway, Starling S., Jr. xxx-xx-xxxx.
Rodgers, Patrick J. xxx-xx-xxxx.
Roos, John G. xxx-xx-xxxx.
Ross, Ronald F. xxx-xx-xxxx.
Russell, Robert B. xxx-xx-xxxx.
Salamone, Bernard P. xxx-xx-xxxx.
Sander, Thomas F. xxx-xx-xxxx.
Scrivener, Thomas S. xxx-xx-xxxx.
Sharp, William R. xxx-xx-xxxx.
Smalls, Thomas E. xxx-xx-xxxx.
Soders, Wardsworth A. xxx-xx-xxxx.
Stankus, Frank T. xxx-xx-xxxx.
Strzelecki, Stanley W., Jr. xxx-xx-xxxx.
Swanson, Bruce E. xxx-xx-xxxx.
Trahey, John H. xxx-xx-xxxx.
Troxel, Timothy S. xxx-xx-xxxx.
Vaughn, Donald F. xxx-xx-xxxx.
Whiddon, Lester V. xxx-xx-xxxx.
Wright, Stafford E. xxx-xx-xxxx.

To be second lieutenant

Arpaio, Michael J. xxx-xx-xxxx.
Bardill, Edward A. xxx-xx-xxxx.
Barth, Francis A., Jr. xxx-xx-xxxx.
Captain, George J., IV xxx-xx-xxxx.
Cloninger, James M. xxx-xx-xxxx.
Cole, Ashley B. xxx-xx-xxxx.
Craddock, Lowell K. xxx-xx-xxxx.
Denton, Samuel E. xxx-xx-xxxx.
Devenney, Dennis P. xxx-xx-xxxx.
Frier, Thomas M. xxx-xx-xxxx.
Gibbs, James R. xxx-xx-xxxx.
Gill, Orin J. xxx-xx-xxxx.
Harrington, William J., III xxx-xx-xxxx.
Hendricks, Richard R. xxx-xx-xxxx.
Kelley, Kevin P. xxx-xx-xxxx.
Martell, Kenneth A. xxx-xx-xxxx.
McNeil, Edward O. xxx-xx-xxxx.
Miller, Terry L. xxx-xx-xxxx.
Molter, Albert C., Jr. xxx-xx-xxxx.
Moser, Kenneth R. xxx-xx-xxxx.
Munger, Dale F. xxx-xx-xxxx.
Myrick, Conrad B. xxx-xx-xxxx.
O'Halloran, Robert P. xxx-xx-xxxx.
Pugh, Robert R. xxx-xx-xxxx.
Ruesch, Kenneth J. xxx-xx-xxxx.
Schmalhofer, George A. xxx-xx-xxxx.
Schneck, Richard E. xxx-xx-xxxx.
Shane, James E. xxx-xx-xxxx.
Skeahan, Charles H., III xxx-xx-xxxx.
Solomon, John O. xxx-xx-xxxx.
Stoehr, Charles M. xxx-xx-xxxx.
Sylvester, John B. xxx-xx-xxxx.
Troller, George R., Jr. xxx-xx-xxxx.
Vassur, Tommy W. xxx-xx-xxxx.
Workman, Kenneth F. xxx-xx-xxxx.

The following-named distinguished military student for appointment in the Regular Army of the United States, in the grade of second lieutenant, under provisions of title 10, United States Code, sections 2106, 3283, 3284, 3286, 3287, 3288, and 3290:

McCullough, Douglas M. xxx-xx-xxxx.

The following-named scholarship student for appointment in the Regular Army of the United States, in the grade of second lieutenant, under provisions of title 10, United States Code, sections 2107, 3283, 3286, 3287, 3288, and 3290:

Miller, Randall R. xxx-xx-xxxx.

IN THE NAVY

The following-named officers of the U.S. Navy for temporary promotion to the grade of lieutenant in the staff corps, as indicated, subject to qualification therefor as provided by law:

SUPPLY CORPS

Aaronson, Brian David
Allen, Bruce Leroy
Anderson, Robert Lee
Andrew, Michael Raymond
Asselin, Andre Sylvio
Avery, James Alan
Basso, Joseph Michael
Battle, Charles Lester
Bishop, Charles Richard
Boyarski, John Robert
Brent, Robert Stephen
Burke, Dennis Patrick
Burns, Granville Webster
Byard, Robert David
Camp, David George
Carbone, James, Jr.
Carpenter, Francis Wood, Jr.
Carty, Arthur Gerard, II
Caspari, John Allan
Chrisman, Calvin Locke
Colin, Dennis Francis
Condon, John Albert
Cumesty, Edward George
Cummings, Donald Lee
Deems, Nyal David
Dickey, Donald William
Eagan, Ewell Elton Timothy, Jr.
Elder, Jeffrey John
Elkins, Franklin Delano
Evans, James Robert
Fagan, Lawrence John, Jr.
Fassnacht, David Gilmore
Fitzpatrick, Philip A., III
Flick, Arthur Bartholomew
Frial, Ernesto Fabillon
Gallarno, Richard
Gannon, Thomas Curtis
Garvin, James Larry
Gent, Carl David
Gerber, Ronald Neal
Giuliani, Francis Lee
Gorman, Howard Paul, Jr.
Goss, Ardin Francis
Gould, Jeffrey Paul
Goulet, Gerard Romeo
Griffin Roland Lewis
Griswold, Raymond Bruce
Haas, Robert Terry
Haddon, Michael James
Hall, Michael Robert
Hall, Richard Patton
Harris, John Walter
Hartman, John Molyneux
Hayward, Daniel Stewart
Heikkila, James Leland
Henderson, Roger Hershel
Hetherington, Jerry Francis
Hirsch, Arthur Franklin
Horner, Lawson Clifton, III
Howze, Gary Wayne
Hrabosky, Bryan, Jr.

Hudock, Steven Adam
Ian, Michael John
Ison, George Stephen
Jacobson, Martin Douglas
Jaques, Jeffrey William
Joyce, James Joyce, Jr.
Kelley, Kevin Paul
Kirby, Kevin Brent
Kirkland, Edward Franklin
Klima, Richard Douglas.
Knight, Robert Clark, Jr.
Kramer, Keith Stewart
Kutzel, Norman Emil
Kyser, Harold Harlon
Law, Robert Francis
Lennon, Michael Paul
Leonard, Robert Paul
Lieberman, Jay Edward
Lippert, Keith Wayne
Lockey, Donald Lee
Lord, Don
Loshbaugh, Richard Allan
Maier, Paul Victor
Martin, John Wright, II
Mason, Edward Frank
McQueen, Thomas Walter
McWherter, Marvin Eugene
Mitchell, Donald Ray
Mizewski, Charles John, Jr.
Monnin, William Charles
Montgomery, John Bradley
Morrison, David Thomas
Murphy, Robert Daniel
Murray, William Michael
Musser, William Allen
O'Connor, William Henry
Oshima, Alan Makota
Parry, Dennis Scott
Patrick, Wayne Mendes
Paul, Robert
Perry, Keith Michael
Peterson, Philip Andrew
Platt, Larry Duane
Pugh, Harry Marvin, Jr.
Pulliam, Stephen Connor
Quandt, Norman Allen
Qinn, Richard Alan
Ramsey, Brenton Lee
Randall, Richard Parks
Rankin, John Henry
Rech, James Harwood
Renard, Geoffrey Kent
Rickards, John Douglas
Rieve, Roy Chandler
Roby, Jeffrey Paul
Ruth, Lloyd Dee, Jr.
Schoenfeld, John Douglas
Schreiner, Phillip Warren
Sellers, Benjamin Russell
Shubert, Tommy Lawrence
Smonko, George Martin
Stein, John Richard
Toft, Carl Emil
Trainor, Michael Brendan
Twomey, Kevin
Mitchell
Vanderslice, Wayne James
Verbic, Alan Robert
Walker, Wayne Allen
Warner, Paul Gregory
Wathen, Theodore Mueller
Webster, Bruce Douglas
Weigle, John Michael
Williamson, William Read
Wilund, William Patrick
Woodward, George Gage, Jr.

CIVIL ENGINEER CORPS

Ambridge, Robert Raymond
Bane, Purvis William, Jr.
Blake, Joseph Albert, Jr.
Bussey, Dennis Raymond
Collins, John Patrick
Congdon, Douglas Emmett
Corsano, Arthur
Davis, William Leighton
Duke, Jonathan Bruce
Ferguson, Carl Edwin
Francis, William Peter
Holen, Douglas Johan
Hong, Ik Pyo
House, Thomas Franklin, Jr.
Hudson, Ronald Richard
Johnson, James Kendall
Kaleva, Frank John
Keibler, Gary Allen
Lemke, Randall Louis
McKay, Joseph Eldwards
Meyer, Robert Scott
Neibert, Jerry Steven
Nichols, Thomas Bruce
Ohearn, John Paul, Jr.
Pollard, Charles Hardin, Jr.
Ryder, Alan Garner
Schmidt, Roger Joseph
Sherbak, Patrick Michael
Siefker, Robert William
Spencer, John Edward
Strongoski, Larry Charles
Tzavaras, George Nicholas
Way, Charles Theodore

MEDICAL SERVICE CORPS

Adams, Robert Wallace
Aliff, William Ray
Auld, John Nelson
Baker, Charles Warren
Baltimore, Daniel Lewis
Benson, Milton Junior
Boyce, Richard
Carroll, Norman Eugene
Chapman, Raymond Nicholas, Jr.
Collins, Jimmy Roger
Cooper, James Melvin
Cox, Peter Thomas
Davis, Leslie Allen
English, Jerry Wayne
Figura, Richard Thomas
Foro, Bradley Roger
Fowler, David Wesley
Gerhard, John Charles, III
Glover, Wayne Paul
Grisham, Onis Hick
Harrington, Garry Robert
Helley, John Arthur
Jacquemin, John Raphael
Janoski, Thomas James
Jay, George Walter
Johnson, John Lawrence, Jr.
Johnson, Wesley James
Kayler, Robert Samuel
Knight, James Douglas
Knight, Paul Leroy
Kuball, John Lawrence
Land, Clarence Edward
Lauver, David John
Laverick, George Robert
Lindsay, Richard John
Logan, Robert Stanley
Masterson, Francis William, Jr.
McClintock, Thomas W., Jr.
McKee, Roland Edmond
Nelson, Lee Durwan
Oals, Wendell Marion, Jr.
Pakowski, Lawrence Paul
Patee, Jerry Curtis
Peterman, Eugene Arthur
Petersen, Henrik Vang
Petroski, Joseph William
Phillips, Harold Edward
Powers, James Michael
Prodanovich, Milo J.
Prucino, Joseph Francis
Renish, John Frank
Rinard, Lanny Arnold
Rittmeyer, Terry Lee
Ryder, Richard Gould
Sandall, Vernon Pat
Sciarrini, Dominic Eugene
Shibley, David Russell
Shockley, Richard Stanley
Simmons, Larry Oliver
Smith, James Thomas
Sparks, Buddy Tom
Stanford, Edmund Harold
Stefanyshyn, Andrew Alexander
Storment, John Herman
Strand, William Raymond
Suttle, Douglas
Vrabel, John William
Waddington, Gregory
Wayland, Marshall William, Jr.
Weeks, William Edward, Jr.
Welch, Richard Roy
White, William Lynwood
Wiggins, Michael Cornell
Williamson, Robert Larue
Wilson, Don Dewayne
Yates, Ronald Robert

Nurse Corps

Cisneros, Thomasa Lena
Reiter, Larry Leon
Ryder, Dorothy Veronica
Sant, Jeanne Paulette

Charles Edward Sparks for temporary promotion to the grade of lieutenant commander in the Medical Corps of the U.S. Navy, subject to qualification therefor as provided by law.

Leroy Ellis Hays for temporary promotion to the grade of lieutenant in the line of the U.S. Navy, subject to qualification therefor as provided by law.

Burtis P. Fike for permanent promotion to the grade of lieutenant in the line of the U.S. Navy, subject to qualification therefor as provided by law.

Howard F. Lee for permanent promotion to the grade of lieutenant (junior grade) in the line of the U.S. Navy, subject to qualification therefor as provided by law.

James E. Agnew for permanent promotion to the grade of lieutenant (junior grade) in the Supply Corps of the U.S. Navy, subject to qualification therefor as provided by law.

Farrell D. Warren for permanent promotion to the grade of lieutenant (junior grade) in the line of the U.S. Navy, subject to qualification therefor as provided by law.

CONFIRMATIONS

Executive nominations confirmed by the Senate September 29, 1971:

AMBASSADORS

Nathaniel Davis, of New Jersey, a Foreign Service officer of class 1, to be Ambassador Extraordinary and Plenipotentiary of the United States of America to Chile.

Henry E. Catto, Jr., of Texas, to be Ambassador Extraordinary and Plenipotentiary of the United States of America to El Salvador.

William G. Bowdler, of Florida, a Foreign Service officer of class 1, to be Ambassador Extraordinary and Plenipotentiary of the United States of America to Guatemala.

Philip C. Habib, of California, a Foreign Service officer of class 1, to be Ambassador Extraordinary and Plenipotentiary of the United States of America to the Republic of Korea.

John E. Reinhardt, of Maryland, a Foreign Service information officer of class 1, to be Ambassador Extraordinary and Plenipotentiary of the United States of America to the Federal Republic of Nigeria.

AGENCY FOR INTERNATIONAL DEVELOPMENT

Herman Kleine, of Maryland, to be an Assistant Administrator of the Agency for International Development.

U.S. ADVISORY COMMISSION ON INTERNATIONAL EDUCATIONAL AND CULTURAL AFFAIRS

The following-named persons to be members of the U.S. Advisory Commission on International Educational and Cultural Affairs for the terms indicated:

For a term expiring May 11, 1973:
Leo Cherne, of New York.
For terms expiring May 11, 1974:
Thomas B. Curtis, of Missouri.
Harry S. Flemming, of Virginia.
William French Smith, of California.